Lumleian Lectures
ON
INFLAMMATION.

Delivered before the Royal College of Physicians, in March, 1882,

BY J. BURDON SANDERSON, M.D., LL.D., F.R.S.,
PROFESSOR OF PHYSIOLOGY IN UNIVERSITY COLLEGE, LONDON.

LECTURE III.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—The most important of the propositions which I submitted to you in the last lecture was this: that the attribute which distinguishes an infective inflammation—that is, one which is capable of extending and reproducing itself—from a normal one (which tends to discontinuance on the removal of its cause)—in a word, the property of infectiveness is but the pathological expression of a chemical state of the tissue and exudation liquids of the inflamed part, for which, in the absence of any reliable chemical characteristics, we gladly accept the microscopical test of the presence of septic organisms.

A second proposition, to which I also attach great importance, related to the agency of floating particles of air, and to the viable organisms which we know to be present in ordinary water, and moreover to be capable of exciting putrefaction. I endeavoured to show that there is no scientific reason whatever for attributing to either of these phlogogenic properties. As I am very desirous to present this question to you from both sides, I will endeavour, by way of sequel to my last lecture, to place before you the arguments of one of the most strenuous and efficient supporters of the opposite view that I know—Professor Hueter, of Greifswald.

"Formerly," says Professor Hueter,[1] "it was taught that inflammation was produced by mechanical, chemical, or thermal irritants. We now know that the most severe injuries can be inflicted without producing inflammation." Consequently, when an inflammation takes its origin from a wound, all that the wound does is to play the part of a door of entrance for the real noxa—whether water germ, air germ, or germ which adheres to the surface of the weapon or missile which inflicts the injury, as the case may be. When, on the other hand, the injury is not of such a nature as to occasion a breach of surface—as, for example, in the experiments I related in my first lecture, in which heat was employed for the purpose of producing inflammation,—the reason why the warmed part becomes inflamed is, according to Professor Hueter, that, its vitality being depressed, air or water germs are enabled to penetrate it. Honestly following out the theory to its legitimate issues, the Professor continues: "Septic organisms exist everywhere, ready, whenever access is offered to them, to enter the body and fulfil their morbific function. Consequently, inflammation may be defined, with reference to the universality of its cause, as an epidemic and contagious disease which prevails universally over the whole world, with the exception of mountainous regions near and above the line of perpetual snow. Here there are no germs, and, we may presume, no possibility of inflammation."

Such is the theory. Its ostensible foundation is the experimental fact that the most extensive and severe injuries of vascular parts, involving bone, muscle, and cellular tissue, may be inflicted under antiseptic precautions without producing any inflammatory effects whatever. To prove this Professor Hueter has made an extensive series of experiments, all of which had this in common—that large portions of deep-seated tissues were destroyed, usually with the aid of Pacquelin's cautery, without injury to the skin or superficial textures. As soon as the cautery had done its work, the external wound, which was so directed that it did not coincide with the track of the cautery, was brought together, and of course treated antiseptically. With the exception of a few instances in which these precautions could not be carried out, the wounds not only healed by the first intention, but gave rise to no disturbance of any kind; so that, inasmuch as the operation was itself performed under deep anæsthesia, it may be fairly assumed that, notwithstanding the severity of the operation, there was little or no suffering. The animals were killed at various periods after the injury, varying from a few days to a few months. In the successful cases, the wounded surfaces of muscular tissue were so completely welded together, as it were, that in microscopical sections of the hardened part, the line of junction could only be distinguished by a blackened mark due to the charring action of the cautery.[2]

Now, *primâ facie* these facts seem very like establishing Professor Hueter's aphorisms, for it is clear that there were here no appearances suggestive of inflammatory exudation. I need scarcely say that there are other facts, both clinical and experimental, though I doubt whether any bear so directly on the points at issue. The most noteworthy are those which relate to the extraordinary results which, thanks to the antiseptic method, have been obtained during the last few years in the transplantation of tissues, such, for example, as the substitution of removed portions of peritoneum by bits of dead membrane, without producing peritonitis,[3] a kind of sewing of new cloth on to old garments, which a few years ago would have been thought absolutely incredible. All such cases, which it would be easy to multiply, Hueter would say are instances of injury without inflammation, proofs that if inflammation is the physiological effect of damage you may, under aseptic conditions, have the cause without its consequences. I venture to think that this is not the correct way of putting it. All that is definitely proved is that, in the absence of septic contamination, inflammatory changes are of limited extent and duration, not that they are absent. Surely this is triumph enough for Lister's great discovery.

There is an experiment which is daily performed in the streets of London and elsewhere besides, which is very much to the point. Its results constitute a very serious objection to the theory that the presence of "viable inflammation excitors" (as Hueter calls them), is a condition *sine qua non* of inflammation. That experiment is simple fracture, which affords us an example of a severe but localised injury to which germs cannot possibly find access. In every fracture a good deal of blood is extravasated, and in many a good deal of vascular tissue is damaged. Does that tissue inflame or not? Hueter says, consistently with his theory, No! We say as emphatically, Yes; and need not, I think, fear to stake the correctness of our view of the etiology of inflammation on the issue. Now the progress of the partly pathological, partly physiological changes which take place in a fractured bone are exceedingly well known. They have been investigated in man and in animals macroscopically and microscopically. The decision of the question has nothing to do with the first stage in the process, that of extravasation, coagulation, and absorption of blood. It has still less to do with the third stage, that of the formation of the callus. All turns on the appearances which the injured part presents during the short period which begins with the absorption of the extravasated blood, and precedes the earliest regenerative changes in the periosteum—those which lead to the formation of the provisional callus. At this time the surrounding muscular tissue, and the medullary cavity of the bone, the contents of the Haversian canals, are alike the seats of small cell infiltration. The periosteum is separated from the bone near the line of fracture by a microscopical layer of similar character, through which the periosteal capillaries pierce to the bone; and all this at a time when no calcareous matter has as yet been deposited in the neighbourhood of the periosteal vessels. The example of simple fracture confirms the proposition laid down in the last lecture: that every injury which is sufficiently severe, provided that it falls short of directly killing the tissue, produces inflammatory exudation.

Having occupied more time than I originally intended to give to the subject, which at the present moment has perhaps more interest than any other, that of the cause and origin of inflammation, the time has come for considering how I may best bring my task to a conclusion within due limits; and, with this view, the best course open to me seems to be

[1] Grundriss der Chirurgie, p. 1.

[2] Experimentalstudien über das Verhalten tiefer Brandwunden, Deutsche Zeitschrift für Chirurgie, vol. ix., p. 381; and Ätiologische Lehre der Entzündung, ibid., vol. ix., p. 401.

[3] Glück, Ueber Transplantation Regeneration und Entzündliche Neubildung, Langenbeck's Archiv, vol. xxvi., p. 896.

to select from the many topics, which I have not found opportunity to discuss, a few of the most important and interesting. During the ten or twelve years which followed the anatomical and physiological discoveries of the middle of the present century, pathologists looked in two directions for the explanation of the phenomena of inflammation—namely, to the bloodvessels and their then recently investigated muscular coats, and to the vital properties of cells. The vascular phenomena, it was hoped, might receive their complete explanation in vaso-motorial action, the textural changes in the germination of tissues. In my first lecture I endeavoured to show that neither of these modes of physiological action are directly concerned in the process.

I trust that I have already given you sufficient evidence that an acute local process, characterised by heat, redness, and swelling, may be induced under conditions which preclude the possibility of textural germination. In any case I do not propose to try to add to it, but will content myself with adverting to one or two considerations which are likely to suggest themselves, as tending in the opposite direction. One of these is the supposed fact that the production of heat is greater in inflamed parts than in others; the other, that in many cases inflammation appears to lead immediately to new growth. If it could be shown to be the case that a focus of inflammation is also a focus of calorification—that in an inflamed part the chemical changes which produce heat are more active than elsewhere—that fact alone would be fatal to the simple conception of inflammation which I have been endeavouring to enforce in these lectures. For, inasmuch as the production of heat is the direct result of normal tissue activity, a process dependent on diminution or arrest of tissue activity, could not lead to increased thermogenesis. Fortunately, the experimental evidence on the subject is now clear and decided. Twenty years ago we all thought that John Hunter's sagacious utterance on the subject, that a "local inflammation cannot raise the temperature of an inflamed part above the source of the circulation," was a mistaken one; for by the very remarkable observations Mr. Simon in this country, and of the late Professor Otto Weber in Germany, it appeared to be shown that the temperature of the blood-stream returning from an inflamed part actually exceeded that of the heart. Notwithstanding the extraordinary care with which these observations were made they have not been confirmed by those who have repeated them. It has been established by observations relating to all sorts of inflammations, and made at every stage of their progress, that the temperature of the inflamed part never exceeds that of the rectum. Here, as in respect of other matters, we find that the most complete experimental observations are those of Cohnheim, who has shown in the most striking way that the increased temperature of external organs when inflamed depends on the activity of the circulation. For this purpose comparative measurements were made by him of the temperature of the fore-paw of a dog in a state of acute inflammation, and that of the opposite paw after division of the axillary plexus, the conditions compared being hyperæmia from vascular paralysis on the one side and from inflammation on the other. It was always found that the temperature of the paralysed paw was slightly warmer than the inflamed, the difference between them being least when the inflammation was in the initial stage, and consequently the circulation most active. On this subject, therefore, John Hunter turns out to be quite correct, both in fact and theory.

The other question that I suggested may be thus put. On the one hand we know that the inevitable issue to which every acute inflammation tends is necrosis by arrest of the capillary circulation of the inflamed part; on the other we observe that it often happens that regeneration of tissue follows so closely on the heels of this essentially destructive process, that we can hardly say where the one ends and the other begins. What is the relation between the processes of inflammation and repair in cases of this kind, as, for example, in simple fracture of bone, where we see the physiological process of callus formation involving all the vascular tissues injured? The instance of bone, for the very reason that it serves well to illustrate the blending of inflammation with repair, is of course not suited for the investigation of the relation between them; for this purpose I must ask your attention once more to the cornea, where both processes can be studied either together or separately, and under conditions which are so perfectly simple, that no question can arise as to the significance of what is observed. When, in the manner described in my first lecture, the central part of the cornea of a rabbit is destroyed by the action of chloride of zinc, the immediate result is, as we then saw, that the tissue dies, and that its structural elements waste and disintegrate. We also saw that outside of the necrotic area these elements show themselves in an unaltered condition; but in a cornea which is removed in an animal killed three or four days after the injury, it is seen that these marginal cornea corpuscles have begun to extend their branching processes in the direction of the dead area; and if this is compared with another cornea excised a few days later, appearances present themselves (in sections parallel to the surface) which indicate that in their further progress these processes are gradually pervading the whole area. In this way a new cicatricial tissue is formed, which consists of the same elements as the tissue which it replaces, although it differs from it in the way these elements are arranged. Here there can be no question that the vital endowments of the injured parts have nothing whatever to do with the new growth by which its destroyed structures are restored. The regeneration takes place by an exogenous growth from the margin, not interstitially. The cells which take part in it lie outside of and beyond the limit of injury, in the direct effects of which they enjoy complete immunity. As accounting for their behaviour, all that can be said is that, being in the neighbourhood of a defect or gap that requires filling up, they bring about that end by growing into it.

However clear may be the purpose of this regenerative growth of the cornea cells, I do not think that we are in a position to explain the nature of the conditions which determine it; so that here, as in other cases, we must have recourse to that provisional kind of explanation which consists in placing the particular instance in rank with a number of others with which it corresponds so closely that, whatever the determining conditions may be, they are the same for all. The instances to which I refer are those in which a gap or defect in living tissue is filled, not, as in the famous experiment by which Hunter discovered the process of animal grafting, but by a bit of some porous material such as elder pith, sponge, or catgut. Thanks to antiseptic surgery it has of late years been shown that what we should at one time have called the "organisability" of such materials is almost unlimited. Probably every one here is acquainted with the remarkable success which has been achieved by Dr. Hamilton[4] of Edinburgh in what he calls sponge-grafting. Dr. Hamilton has found that when a granulating wound is filled with purified sponge, the granulation tissue grows into the interstices of the sponge in such a way that eventually the whole of it disappears, having been incorporated in the cicatrix. Again, if an excised cornea is introduced into the peritoneal cavity of a rabbit, under antiseptic precautions, it occasions no disturbance whatever. It soon becomes enclosed in a vascularised envelope the capillaries of which are derived from those of the serous membrane to which it adheres, and the same thing happens if you substitute a bit of sponge or catgut. These last cases differ from that of the cornea in the presence of vessels as well as in the circumstance that the framework or tissue does not belong to the place it occupies. But all have the same bearing on the relation, or, rather, antagonism, which exists between inflammation and new growth. The one condition which is essential to the initiation of a reparative or regenerative process is the existence of a solution of continuity. Whether the defect is occupied by sponge, by tissue derived from another part of the body, or by dead tissue of the same part, the result is the same—namely, that the dead becomes incorporated with, grafted into, the living, by the agency of the normal elements of the uninjured part.

(To be concluded.)

[4] On Sponge-grafting, Edinburgh Medical Journal, November, 1881.

ROYAL UNIVERSITY OF IRELAND.—The Senate on the 18th inst. appointed the following examiners:—Anatomy: C. J. Nixon, J. P. Pye, Peter Redfern. Physiology: J. J. Charles, C. Coppinger. Surgery: Anthony H. Corley, P. J. Hayes. Medicine: Benjamin G. MacDowel, Stephen M. MacSwiney. Midwifery: John A. Byrne, H. Macnaughton Jones. Materia Medica: J. S. Reid, Francis B. Quinlan. Medical Jurisprudence: Edmund W. Davy, M. O'Keeffe. Botany and Zoology: A. G. Melville, G. Sigerson.

Gulstonian Lectures
ON
PULMONARY CAVITIES; THEIR ORIGIN, GROWTH, AND REPAIR.

Delivered before the Royal College of Physicians, in March, 1882,

BY WM. EWART, M.D. CANTAB., F.R.C.P.,
ASSISTANT-PHYSICIAN AND PATHOLOGIST TO THE BROMPTON HOSPITAL FOR CONSUMPTION, PHYSICIAN TO THE BELGRAVE HOSPITAL FOR CHILDREN, DEMONSTRATOR OF PHYSIOLOGICAL CHEMISTRY AT ST. GEORGE'S HOSPITAL.

LECTURE III.—PART III.

OF the alterations in shape suffered by cavities I have already spoken at sufficient length. The relations of cavities to surrounding parts are also subject to variations. When superficial, and when, at the same time, closely adherent to the chest wall, cavities are only susceptible of very limited alterations in their position, but the intervention between them and the pleura of a moderate thickness of spongy tissue enables them to undergo a gradual but decided displacement. This shifting of cavities, as the result of age, takes place in a determinate direction. In all cavities the natural tendency is to a recession towards the root of the lung; and the compensatory development of the healthy portions of the lung usually assists, by substitution, the normal retraction. Thus I have sometimes found in the mid-dorsal region, connected with a thickened and shortened bronchus, the remains of a cavity which had obviously retreated from the surface under the influence of this hyper-inflation of the lung tissue which had grown-up, as it were, around it. The retraction upwards of cavities at the base is often very striking, but greater practical interest belongs to the history of cavities at the apex.

The direction of the shifting of the apex cavities is remarkably constant. Unless rigidly fixed by adhesions, they invariably tend to retreat from the front of the chest towards the back, and from the subclavicular into the axillary region; consequently the chronic cavities so frequently detected after death at the outer apex should not be taken to have necessarily originated there. The remarkable shifting to which I have alluded was pointed out by Dr. C. T. Williams in his Lectures on the Various Modes of Contraction of Cavities in Phthisis Pulmonalis.[1] I fully agree with the view which he expresses concerning the special mechanism at work. It cannot be doubted that on the right side the retraction is mainly favoured by the great expansion of which the middle lobe is capable. I would not, however, restrict this action to the right middle lobe. Every portion of spongy tissue in the sternal region is possessed of similar capabilities for expansion, and on the left side the ultimate results are not far behind those observed on the right.

The recognition of the changes which I have mentioned has a direct bearing not only upon our diagnosis, but upon the prognosis which we may form in individual cases. Unless we have carefully examined the upper axillary region, we cannot pronounce a chest to be free from excavation. The signs of disease have sometimes entirely disappeared from the anterior aspect of the chest when cavernous sounds are still plainly perceptible in the axilla. The discovery of a vomica in this situation frequently throws upon the history of the case a clearer light than is derivable from the patient's own statements. On the other hand, in the early stages of subclavicular disease the rapidity with which the signs are observed to recede may be accepted as a measure of the favourable chances. From this rapid shifting we derive an assurance that the vomica has ceased to extend, that contraction is active, and that the lung is sufficiently free from adhesions to acquire the compensatory development which is the first essential towards recovery.

The changes in the position of cavities which I have indicated are usually bound up with very definite alterations in the configuration of the lungs. Upon this third result of the contraction of cavities I would dwell at some length, finding that hitherto the changes in question have received but little attention, although hinted at by Laennec and pointed out by my colleague Dr. Douglas Powell. The retraction which has been shown to take place in the line of the bronchus leads, unless rigid fixation has resulted from adhesion, to a dragging inwards of the surface of the lung at a corresponding point. Thus a deep puckering found at the surface of the lung after death is often an indication of a subjacent cavity. Similar puckerings may, however, result from a variety of circumstances. The fibrin of an infarct, syphilitic fibrosis, or the common fibro-tubercular masses, will all induce a retraction of the surface; and it may be here noted that those cavities which are formed at the expense of hæmorrhagic deposits occur, as pointed out by Dr. R. E. Thompson, subsequently to the original retraction; this does not, in my estimation, preclude a subsequent contraction of the cavity and a secondary retraction, and in accordance with this view it is customary to find the highest degree of retraction over those cavities which can be traced to hæmorrhage.

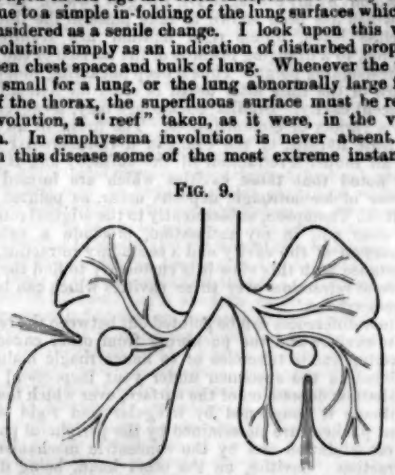
Minor differences can be pointed out between the retraction due to cavities and the puckering from other causes. The puckering due to tubercles or to hæmorrhagic nodules (exemplified in the specimen under your inspection) consists in a shallow depression of the surface, over which the pleural membrane is roughened by irregular and rigid wrinkles. These puckers are determined by the peripheral position of the consolidation and by the concentric mechanism of its contraction. Cavities, on the other hand, being drawn in towards the root of the lung give rise to a slit-like in-folding of the surface, invariably deeper than the hæmorrhagic pucker. As an extreme instance of this condition I submit to you a photograph and the specimen from which the photograph was taken. The lungs were removed from the body of a young man, who died of chronic phthisis, under Dr. C. T. Williams, at the Brompton Hospital. When first admitted in November, 1874, he was puny and delicate for his age (then fourteen years); he had suffered from cough for twelve months, but inherited no predisposition to phthisis; neither was there any history of hæmorrhage, nor of any important disease. Diffused crepitations were the only signs audible in the chest. In January, 1875, however, a marked cavernous gurgle was heard in the right subclavicular and subscapular regions. When discharged in April of the same year, he had much improved in weight and in general appearance. The phthisical sounds, however, still indicated the presence of excavation at the right apex, coupled with creaking sounds in the right scapular region; and at the left apex, bronchophony was noted in addition to crepitations. He appears to have enjoyed comparatively good health until six months prior to his second admission in February, 1881. On this occasion dulness and humid crepitations were present at both apices externally; and at the back cavernous sounds were found between the spine and the right scapula. Anteriorly, dulness and humid crepitations occupied the upper half of the left lung and the upper third of the right. The patient died with symptoms of dyspnœa soon after his admission. The specimen presents more points of interest than I can venture to enumerate. I would call your attention incidentally to the remnants of the old apex excavations remarkably fibrosed and contracted, and to the presence at the left outer apex of a cavity of emphysematous origin such as I have described to you in my first lecture. The most remarkable feature, however, is the puckering of the lung surface over the contracting cavity, especially the deep ante-posterior involution of the base of the left lung. (Fig. 9.) The visceral pleura can be clearly followed along both sides of this V-shaped incision (measuring two inches and three-quarters in length), the summit of which is continuous with a thick fibrous scar two inches and a quarter in length and one-third of an inch in thickness, which it is difficult not to consider as resulting, partly at least, from the cicatrisation of a vomica. This scar terminates above in a thick-walled fibrous cavity. I believe this cavity to have originally extended to within a short distance of the middle of the base, and by its gradual healing to have caused the extreme retraction you witness; whilst the healthy tissue on either side became expanded in a proportion nearly equal to the loss incurred by involution. The elongation of the left lung, in consequence of the flattening from side to side should also be noticed.

Involutions of such large extent are extremely uncommon;

[1] THE LANCET, 1872, vol. i., pp. 298 and 369.

they are most frequently due to the retraction of cavities. This, however, is far from being the only cause of a recession of the pulmonary surface. The scars so commonly found at the apex in old age are often independent of any deposit, and due to a simple in-folding of the lung surfaces which may be considered as a senile change. I look upon this variety of involution simply as an indication of disturbed proportion between chest space and bulk of lung. Whenever the thorax is too small for a lung, or the lung abnormally large for the size of the thorax, the superfluous surface must be reduced by involution, a "reef" taken, as it were, in the visceral pleura. In emphysema involution is never absent. We find in this disease some of the most extreme instances of

FIG. 9.

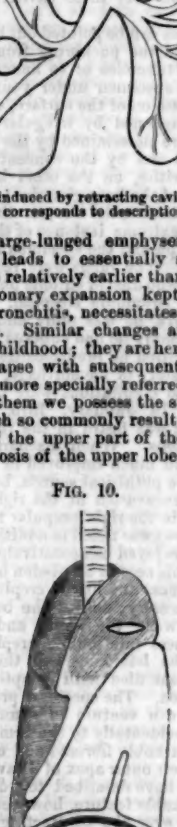


Involution directly induced by retracting cavity. The involution at base roughly corresponds to description given in text.

the latter. The large-lunged emphysema sometimes observed in old age leads to essentially similar conditions. The thorax shrinks relatively earlier than the lung, and the unsubstantial pulmonary expansion kept up under the influence of chronic bronchitis, necessitates an adjustment by means of involution. Similar changes are apt to occur in youth, and even in childhood; they are here almost invariably due to alveolar collapse with subsequent collateral emphysema. But I have more specially referred to the senile conditions, because in them we possess the simplest illustration of the changes which so commonly result from excavation.

The flattening of the upper part of the chest induced by excavation and fibrosis of the upper lobe cannot take place

FIG. 10.

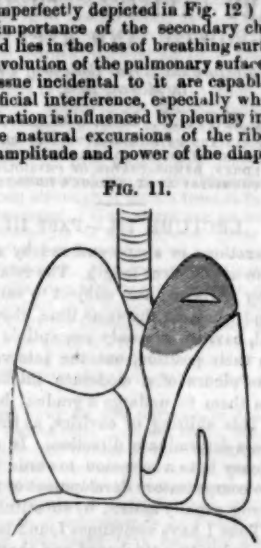


Flat chest. Contraction of cavity, with fibrosis, at left upper lobe. *Transverse involution* at left base from compensatory hypertrophy of lower lobe.

without some degree of flattening of the lower thorax. The base of the lung, which is usually the seat of compensatory distension, becomes relatively to the thorax hypertrophied, and involution follows after the simple mechanism which I have described. The shape of this involution is governed by the form of the thorax. If the latter be flattened from front to back, the lung will become affected with *transverse involution*; if from side to side the sulcus of involution will follow an antero-posterior direction. In both these instances the horizontal section of the base is lessened in diameter, and the divergence of the opposite sides of the lung being diminished, the lung tends to elongate. Occasionally the folding at the base occurs in several diameters, and the lower surface of the lung, which is usually under these circumstances adherent to the diaphragm, is hollowed out into a domelike involution. (This condition is imperfectly depicted in Fig. 12.)

The chief importance of the secondary changes which I have described lies in the loss of breathing surface which they occasion. Involution of the pulmonary suface and the loss of respiratory tissue incidental to it are capable of being promoted by artificial interference, especially where pleurisy coexists. Respiration is influenced by pleurisy in a very definite manner. The natural excursions of the ribs are reduced; the lessened amplitude and power of the diaphragmatic con-

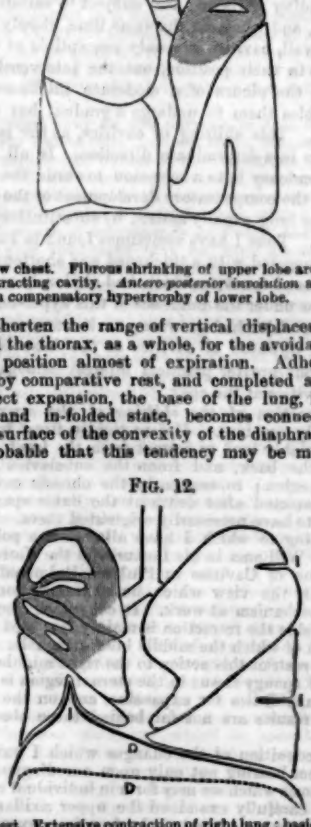
FIG. 11.



Narrow chest. Fibrous shrinking of upper lobe around a contracting cavity. *Antero-posterior involution* at base from compensatory hypertrophy of lower lobe.

tractions shorten the range of vertical displacement of the lung; and the thorax, as a whole, for the avoidance of pain, assumes a position almost of expiration. Adhesions being favoured by comparative rest, and completed at this stage of imperfect expansion, the base of the lung, in a slightly collapsed and in-folded state, becomes connected with a restricted surface of the convexity of the diaphragm. I consider it probable that this tendency may be materially en-

FIG. 12.



Short chest. Extensive contraction of right lung; basic involution with invagination of diaphragm. Secondary shortening and involution affecting the hypertrophied left lung.

couraged by the mechanical appliances so often used in the treatment of pleurisy, and that the respiratory excursions may become shortened even beyond natural and instinctive limits. The ultimate results on the outline of the lung are readily perceived. The contraction and the descent of the diaphragm cannot take place without inducing a folding or involution of the basic surface. On the other hand, the adherent fringe of the lung is not at liberty to glide into its accustomed groove; but whilst it becomes curved inwards its place is supplied by a lateral expansion of the side of the lung. Pleurisy at the base is an extremely common event in phthisis, and it often intensifies, in the manner which I have described, the involution arising from the contraction of cavities and from compensatory hypertrophy.

The rough outline which I have given of this subject

would not be complete without a brief allusion to a form of involution indirectly due to excavation. Great shortening cannot take place in one lung as a result of the contraction of a cavity without occasioning some degree of shortening in the other lung. Especially striking is this rise in the main level of the diaphragm, whenever the latter, as depicted in the diagram, has become invaginated into the lung—an occurrence of which I have seen a few instances, and which would naturally result where basic involution had been preceded by intimate adhesion between the lung and the diaphragm. In cases of this kind the sound lung, whilst it expands in breadth under the influence of compensatory hypertrophy, is restricted as to vertical space. This leads to the formation of a transverse involution, which often occupies the middle third of the axillary surface, and which, as it were, accommodates the sound organ to the curtailed dimensions of its fellow. The interest of the change which I have just described lies in the fact that the results of excavation are here visited upon the healthy lung *Ceteris paribus*, the shortening of the hypertrophied lung will favour its encroachment into the diseased side of the chest.

From what has been stated in this lecture concerning the ascent of the diaphragm in cases of vertical contraction of cavities, and concerning its depression, where the contraction, being horizontal, tends to narrow and elongate the lung, it is easy to divine the direction and extent of the secondary displacements of the abdominal organs. Upon this part of my subject I would not further dwell; but I would direct your attention to the more important alterations which occur in the position and shape of the thoracic organs, and especially of the heart and large vessels.

The aorta, doubtless, owes to the strength of its walls, and to its close connexion with the vertebral column, its immunity from the effects of pressure to which other vessels are subjected. The superficial position of the pulmonary artery, and its comparative thinness, render it especially liable to suffer. The shrinking of the cavities at the left apex is almost inevitably followed by exposure of the pulmonary artery, and not infrequently by some degree of pressure upon its walls. The clinical signs of these conditions, when present, supply valuable testimony in favour of the diagnosis of contracting vomica. The large veins accommodate themselves with wonderful ease to the great shifting which they occasionally undergo under the influence of excavation, and we seldom notice any serious complications arising in this direction.

Of much greater interest to the practical physician are the alterations in the position and in the relations of the heart. An attention to these changes is often rewarded with valuable diagnostic results, and I confidently assert that in some cases of phthisis the examination of the heart supplies us with evidence more conclusive than is obtainable from an auscultation of the lung. As a guide to the existing level of the diaphragm, a determination of the position of the heart-beat is of the greatest assistance. The heart's apex, I need scarcely state, does not always coincide with the strongest impulse perceptible to the hand; nor does it necessarily occupy, as in health, the lowest position. But should we succeed in ascertaining by a combination of the methods of palpation and of auscultation the exact position of this lowest point, we derive absolute information concerning the heighth of the diaphragm, a subject of the greatest practical importance.

Again, the extent of the exposed cardiac area sometimes throws much light upon the degree of expansion or of retraction of the lungs. Excavation occurring at the left upper lobe, especially in its anterior segment, is apt to be followed by retraction of the spongy substance which normally covers the greater part of the heart's surface. Excavation in a similar position on the right side, although it may lead to exposure of the right side of the heart, is usually accompanied by the encroachment of the left sternal fringe over the normal cardiac space, and the presenting surface of the heart is not as a whole increased. Where the excavation instead of being anterior and superficial extends into the depth of the lung and involves some of the bronchi which are distributed towards the shoulders, and where, moreover, the pericardial surface is adherent to the lung, considerable displacement of the heart outwards takes place on the side affected. It is obvious that the same contraction will lead on the left side to a lateral position much more extreme than is possible on the right, and that it will also raise the heart to a higher level than follows from right-sided disease. This was long ago pointed out by Dr. C. T. Williams in his lectures on the Contraction of Cavities. The specimens and the photographs before you carry their own explanation; you will find in them illustrations of extreme dislocations of the heart towards the left.

The displacement of the heart towards the right is less frequently described, not owing to a less frequency of the apex excavation, but rather owing to the fact that compensatory hypertrophy of the right middle lobe usually supplies in the right half of the chest the place of the tissue destroyed; and, also, from the circumstance that adhesions of the right lung to the pericardium are less common than happens on the left. I have frequently met with this displacement; it is well shown in the photographs submitted to you, where I have roughly mapped out the area of the displaced heart, and the position of the cavities which have induced dislocation.

Time forbids that I should attempt a detailed description of the rotation which accompanies lateral displacement of the heart, and of the mechanism to which the rotation is due. For a full treatment of this subject I would refer you to Dr. Sibson's article on "The Position and Form of the Heart and Great Vessels," in Dr. Russell Reynolds' "System of Medicine." From the special standpoint of the healing of cavities, I would, however, introduce slight modifications in the accounts there given of the mode of production of this change. A purely secondary influence is to be ascribed, in my opinion, to the aorta, to the pulmonary artery, and to the superior vena cava in determining a rotation to the left in left lateral displacement of the heart, and to the right in right lateral displacement. The relative length of these vessels enables them rather to suffer than to exercise the influence in question. Within the pericardium, which limits its movements in a very definite manner, the position of the heart is controlled by three attachments closer than all others. I refer to the pulmonary veins on either side, and to the intra-pericardial portion of the inferior vena cava. The shortness of these trunks occasions in the base of the heart the same movements which the vessels themselves undergo. The influence exercised upon the heart by a retraction of one or of the other lung is comparable in direction to the movements imparted to a heavy upturned sack, in emptying its contents by the tilting of its corners. At the corners are the right and the left pulmonary veins, which, as they recede with the lung, tilt the heart towards the one or the other side. But the resulting movement is modified by the other cardiac attachments in a manner which cannot be understood without referring to a special case. Let us take the contraction of a cavity in the left upper lobe. Owing to the retraction of the right lung upwards, outwards, and backwards, the left pulmonary vein raises and draws backward the left auricle, whilst the relatively forward position of the root of the right lung, and the high level of the diaphragm and of the orifice of the inferior vena cava, loosen the reins for the right auricle, which readily with its ventricle rotates towards the left. Similarly, if the right auricle be raised the rotation towards the right will be favoured by the looseness of the attachment of the left auricle, for it should not be forgotten that the retraction of the root of one lung is almost invariably accompanied by an advance of the sound lung towards the middle line. In this movement of lateral displacement the "hinge" of the heart appears to me to coincide not with the line drawn between the upper and the lower vena cava, as suggested by Dr. Sibson, but rather with the lines passing through the inferior vena cava, and the right and the left pulmonary veins respectively.

These remarks must conclude the subject of the anatomical results of the contraction of cavities, which, in common with the other parts of these lectures, I can only pretend to have roughly sketched. The small measure of what has been achieved would have been yet smaller but for the helpful friendship of many. For the loan of specimens and drawings my thanks are due to Dr. Andrew Clark, to Professor Marshall, and to the authorities of St. George's Hospital; for the elaboration of diagrams to my friend Mr. A. H. Hallam Murray, to Mr. Francis Compton, to Mr. Arthur Grayling, and to my predecessor as pathologist at the Brompton Hospital, Dr. Reginald E. Thompson; for much encouragement to all my colleagues, and especially to our senior physician, Dr. Symes Thompson, and to Dr. Pollock, by whose recent elevation to the consulting staff

we lose more than it befits me to say; and, lastly, for untiring aid to my brother, Mr. Charles Ewart.

In bringing these lectures to a conclusion I feel that they have contained little information which can be recapitulated in the shape of propositions. The difficult study of cavities has repaid me rather in suggestions than in facts; these suggestions I have attempted to lay before you. The origin of cavities and their progress for better and for worse, and the influences which they exercise and which they suffer, have supplied the humble material for my demonstrations. Of "treatment and of cure," which are the aim of all our labours, I have refrained from speaking, remembering that before we attempt to guide the forces of Nature we should clearly understand the ways in which they are put forth. But I venture to express a confident hope that the treatment of pulmonary cavities may look forward to a better future if it seeks its foundation in a sound pathology. The method which I have adopted in my endeavours to gain a clear insight into phthisis has been chiefly based upon a study of functional relations. I am conscious of the meagre results which I have obtained and of the great amount of work which remains unachieved. Yet if I have in any way contributed to the adoption of a plan of investigation which may become productive in other hands, these lectures, and the indulgent attention with which you have received them, will not have been in vain.

ON THE

TREATMENT OF CHRONIC DYSENTERY BY VOLUMINOUS ENEMATA OF NITRATE OF SILVER.[1]

BY STEPHEN MACKENZIE, M.D., F.R.C.P.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, THE LONDON HOSPITAL.

THERE are few diseases more unsatisfactory to treat than that chronic form of dysentery, or dysenteric diarrhœa, which is left behind by an attack of acute dysentery, contracted abroad, or more rarely in this country. On this point there is a universal concurrence of testimony. At the London Hospital, from its propinquity to the river and docks, our opportunities of studying the disease are very considerable, and until recently I regarded it as one for which therapeutics could do but little. Time, and the favourable hygienic conditions by which patients were surrounded in the hospital, afforded some palliation, and drug treatment contributed perhaps in a minimal degree to the relief of the patient's suffering. At the Seamen's Hospital, Greenwich, where are enjoyed even better opportunities of watching the disease and of trying various plans of treatment systematically and on a large scale, their experience of treatment is equally unfavourable. The late Dr. Harry Leach[2] wrote: "The resources of the Pharmacopœia have, I believe, been fully and fairly tried in the Seamen's Hospital: diaphoretics, astringents (vegetable and mineral), calomel, castor oil, ipecacuanha (simple and compound), and a host of other so-called remedies, have been prescribed, as well as opiates, blisters, suppositories, and enemata; and it has been agreed by Dr. Ward, the senior physician, and others who have had medical experience in this institution, that failure has been the rule rather than the exception. Four years ago, having treated upwards of two hundred cases of dysentery, I ventured to record that those who, having lingered the longest, or at length got well, are those with whom therapeutics have little or nothing to do." Dr. Ward, whose opinion is here quoted, elsewhere writes,[3] that "special remedial agents, if of little use to control or cure the disease, render important service in the relief of distressing symptoms. An occasional dose of castor oil, guarded by laudanum, or an injection of gruel with oil, will bring away scybalous fæcal matter that may have caused annoyance for some time." Dr. Ralfe, now my colleague at the London Hospital, in a very valuable paper[4] has given his experience at the Seamen's Hospital, to which he was, at the time of writing, physician, especially with reference to the treatment of chronic dysentery by small and repeated doses of castor oil, alone or in combination with other medicaments. His results, as stated in the above paper, which is a model of clinical record, show an improvement upon his predecessors' experience, but leave room for very considerable advance. Sir Joseph Fayrer,[5] than whom nobody has enjoyed greater, or better used, opportunities of studying dysentery in all its forms and shapes, said in his recent Lettsomian Lectures: "Medicines, no doubt, are at times of great service, but recovery depends more on hygienic measures and proper food than on drugs. Many patients linger for months or years, and succumb at last. The lesions in the bowels are never repaired." Probably all present have had patients invalided home from India or elsewhere for dysentery, and their experience will concur with the authorities I have quoted and with my own. Any plan which promises to render our treatment more useful will doubtless, therefore, be welcomed and submitted to the practical test of experience. It is with this object I propose to bring under your notice a mode of treatment I have been using for some little time past, and to give you my experience of all the cases (not very many in point of number, it is true) I have treated in this way.

Before proceeding to describe and discuss the treatment in question it will be desirable to glance, for a moment, at the morbid condition which has to be corrected, and we shall then be in a better position to form an opinion as to what treatment will be most likely to succeed. Without entering into nice pathological distinctions we may speak of dysentery as an inflammatory condition of the large, and in some cases of the small, intestine, leading to ulceration and destruction of the mucosa and thickening of the submucous coats. As we see such cases on the post-mortem table we find a greater or less extent of the mucous membrane of the colon irregularly ulcerated, islands of swollen mucous membrane between serpentine ulcers with thickened edges, or an uneven surface of slate colour with puckered cicatrices. Large patches occur destitute of proper glandular constituents, and the mucous membrane that remains shows under the microscope great changes. The epithelium is in an exaggerated condition of goblet cells charged with mucus, thus accounting for the large production of slimy excretions that characterise the complaint. It is generally observed that the ulcers are most marked along the rugosities of the mucous membrane, and, when the small intestine is the seat of the disease, along the valvulæ conniventes. The disease is sometimes confined to the rectum and sigmoid flexure, sometimes limited to the cæcum. As a general rule the disease is of longer standing, and most advanced towards the rectum, most recent and least advanced towards the cæcum; but this is by no means without exceptions. For all practical purposes we may regard the disease as an ulcerative colitis. I am aware, and have had post-mortem experience on this point, that in some tropical cases the bowel is not ulcerated, but is in an extraordinarily attenuated condition.

The effects of the morbid conditions of the bowel I have alluded to are to impair all its functions. Absorption is greatly hindered, and the peristaltic action of the bowel is diminished, or perverted and irregular, so that fæces pass on hurriedly mixed with mucus and blood, or concrete into scybala, which often attach themselves to the bowel, appearing to act like issues and increase the mischief.

It will be conceded that remedies given by the mouth can have but little topical effect on a portion of the alimentary canal some twenty feet from the point at which they are introduced, and along the whole length of which they have to travel. Any action, whether astringent, sedative, laxative, or alterative, such remedy possesses, has been dissipated and squandered on the comparatively unoffending tract of mucous membrane along which it has travelled before it reaches the part desired to be influenced. Remedies like opium, while they exert, through the nervous system, an influence on the movements, and perhaps on the secretions of the bowel, do not confine their action to the part affected. Laxatives like castor oil remove scybala and decomposing matters which collect on the irregular mucous membrane, and possibly do good by bathing the mucous membrane with the flux produced from the small intestine.[6] Ipecacuanha appears to possess a specific influence, but its value is in acute dysentery and in the acute and subacute exacerbations which

---

[1] Read at the Medical Society of London, March 20th, 1882.
[2] The Practitioner, Dec. 1870.
[3] On some Affections of the Liver and Intestinal Canal, p. 156.
[4] THE LANCET, Feb. 14th, 1880, p. 241.
[5] Med. Times and Gaz., March 12th, 1881, p. 286
[6] Ralfe, THE LANCET, Feb. 28th, 1880, p. 322.

sometimes interrupt the course of chronic dysentery: in these conditions its value is unequalled.

In the treatment of ulceration of mucous membranes within reach of sight and touch, all practical physicians and surgeons are convinced of the great importance of local applications, whether the seat of the disease be the pharynx, the larynx, the eye, the cervix uteri, or elsewhere. In these situations, whether the ulceration be of constitutional or local origin, we employ local treatment, with or without internal medication, and as the effects of treatment can be observed, no one doubts its efficacy. All practical surgeons are assured of the beneficial influence of applications of nitrate of silver, and other mineral astringents and mild escharotics in treating inflammations of mucous membranes. How different is the treatment of dysentery from that of inflammation of the upper part of the alimentary tract. It may, of course, be remarked that treatment which is obviously beneficial to such parts as our hands can reach, cannot, on account of physical difficulties, be applied to the length of the colon. But this difficulty is not wholly real. With a view of rendering our practice in the treatment of dysentery more successful, and more in accordance with our procedures elsewhere, Dr. Horatio Wood, of Philadelphia, has suggested the use of large enemata of nitrate of silver, so as to bathe with a solution of this salt the whole mucous membrane of the colon. This treatment he has appropriately designated "the rational treatment of dysentery."[7] I am aware that enemata have long been employed in the treatment of dysentery, but the importance of *large* enemata has not been insisted on, and their use is not general. Ringer,[8] Gairdner,[9] Bristowe,[10] Niemeyer,[11] and others recommend the employment of enemata, and in some instances of nitrate of silver, but none enjoin the use of such large enemata of nitrate of silver as recommended by Dr. Horatio Wood.

"The disuse of local applications in dysentery is largely, no doubt," Dr. Wood observes, "the result of our former inability to make use of applications to any other than the extreme lower portions of the colon. By the use of forced enemata, so-called, we are now, however, able to reach every part of the large intestine. In giving such injections it should be first remembered that the name is a misnomer; that no force should ever be used. The patient should be brought to the edge of a hard bed, placed in a position somewhat resembling that for lithotomy, his buttocks resting upon a hard pillow in such a way as to elevate the pelvis, and cause the injected fluid naturally to flow downwards and inwards. A well-oiled, smooth, somewhat flexible, hard tube, with openings at the side (an œsophageal tube will answer well) and a closed end, must then gently and slowly be introduced from eight to twelve inches into the rectum. The free outer end of this may be connected with a Davidson's syringe, and the fluid thus be slowly pumped in. A better plan is to unite it with a flexible indiarubber tube, in the end of which a funnel is inserted. This being elevated five or six feet, the water is poured in, and by its own weight, with irresistible gentleness, forces its way into the gut. Instead of a funnel being used, the tube may be so arranged as to empty a bucket or other reservoir of water, placed five or six feet above the patient. A direct connexion may be made, or the principle of the syphon taken advantage of. Finally, the so-called fountain syringe may be substituted.[12] In any case the liquid should be about the temperature of the body, so as not to provoke peristalsis by the stimulus or heat or cold."

Dr. Wood writes that whilst some considerations would lead us to expect variety in the character and strength of the applications would be likely to be serviceable, his experience of throat affections led him to select nitrate of silver in the first instance, and he has been so satisfied with its results that he has employed no other. Drachm doses have, in his hands, never occasioned constitutional symptoms, and less than forty-grain doses have not accomplished much good. In one of my own cases, to be narrated, a single enema of thirty grains of nitrate of silver, in three pints of water, caused the complete cessation of chronic dysentery that had lasted two years. This I regard as exceptional. I believe that, as a rule, at least a drachm of nitrate of silver to three pints of water should be used, and I have employed as much as a drachm and a half of nitrate of silver to this quantity of water with good result and without danger. Dr. Wood properly discusses the possible effects of the application for a longer period than occurs elsewhere, of so large a dose of nitrate of silver to an absorbent surface, but has never seen the least inconvenience arising from it. My experience is in entire accord with his. He suggests that, in case of the enema being retained, and fear arising as to the toxic effects of a large dose, a solution of common salt should be at hand to inject, and neutralise the nitrate of silver. In two cases, in my absence, my house-physician thought it desirable to do so.

I myself have been led to try perchloride of iron instead of nitrate of silver, as the former would be wholly destitute of the dangers entailed by the use of the latter, and any absorption which took place would be an advantage rather than the reverse. But my results have not been nearly so good with iron as with silver. I have not experienced any practical difficulty, inconvenience, or the least danger with these large and comparatively strong injections of nitrate of siver, whilst the results have been so encouraging that I am anxious the treatment should be tried on a larger scale, and by other observers.[13] It will, of course, be understood that this plan of treatment is not suitable for diseases of the intestine above the ileo-cæcal valve.

(To be concluded.)

[7] Philadelphia Medical Times, Oct. 27th, 1877, p. 25.
[8] Handbook of Therapeutics, sixth edition, p. 56.
[9] Clinical Medicine, p. 661.
[10] Theory and Practice of Medicine, third edition, p. 642.
[11] Text-book of Practical Medicine, American trans., revised edition, 1876, p. 674.
[12] Leiter's apparatus for injections will be found the most serviceable.
[13] Dr. Ralfe, who employed this treatment at my suggestion, is not so satisfied as to its efficacy as I am.

EXCISION OF THE ENTIRE TONGUE BY WHITEHEAD'S METHOD.

BY FREDERICK TREVES, F.R.C.S.,
ASSISTANT-SURGEON TO, AND SENIOR DEMONSTRATOR OF ANATOMY AT, THE LONDON HOSPITAL.

IN THE LANCET of February 25th two cases are recorded—each by a separate surgeon—of removal of the tongue by the method introduced by Mr. Whitehead of Manchester. This operation is so well known that it is merely necessary to observe here that it consists in removing the entire tongue through the mouth with scissors only and without any preliminary deligation of vessels. This method is an important departure from the operation of Billroth, who, while excising the tongue in a manner practically identical with that advised by Mr. Whitehead, first secures the two lingual arteries in the neck. In both the recorded instances just alluded to a good recovery followed, but in criticising the operation one of the surgeons—Dr. Andrew Marshall—asserts that "apparently no method could be easier, safer, or more satisfactory;" while the other—Dr. George Elder—expresses his intention of not again repeating the operation, but of adopting instead the procedure of Billroth. From these comments it would be obvious, in the absence of any other evidence, that a great difference of opinion may exist as to the value of Mr. Whitehead's operation, and I imagine that the truth in this matter can best be arrived at by an accumulation of cases from different sources. I venture, therefore, to detail the particulars of a case in which I recently removed the entire tongue by Mr. Whitehead's method. In the first place it must be stated that the main and perhaps the sole objection to Mr. Whitehead's method is founded upon the matter of hæmorrhage. If the question of probable bleeding be put aside this operation would appear to be in every way excellent. By its means the tongue can be removed entire with ease, with precision and with rapidity. The neighbouring parts are but little disturbed, and all the evils incident to the crushing or burning of tissues (as involved in the use of écraseurs) are avoided. Apart from this simple question of bleeding, I believe the only serious objection to the operation is that raised by Professor Stokes, who asserts that it is apt to be followed by septic infection. This objection has, however, been, I think, fully and satisfactorily met by Mr. Whitehead himself.[1] As regards this question of hæmorrhage the most conflicting statements have been made. In Dr. Marshall's

[1] Trans. of the International Medical Congress, 1881, vol. ii., p. 467.

case above noted, "no bleeding of the slightest consequence occurred during the process until the lingual arteries were cut," while in Dr. Elder's case the loss of blood was very considerable, and, indeed, so serious as at one time to threaten asphyxia. Mr. Whitehead in his account of the operation in the Congress Transactions, says that "the danger from hæmorrhage is simply *nil*;" he further speaks of the bleeding as "trifling," and as "easily controllable." Mr. Lund, on the other hand, in his excellent account of the operation, states that the bleeding may be "very profuse," and *à propos* of the subject of loss of blood speaks of the "regulation pint," although he does not infer that that amount is ever lost in this particular operation.[1] In detailing the following case, therefore, I shall deal almost exclusively with this matter of hæmorrhage.

A man, aged fifty-three, a clerk, was admitted into the London Hospital, under my care, on Dec. 3rd, 1881. The middle third of the left side of the tongue was occupied by an epitheliomatous mass that had ulcerated extensively and had been noticed about five months. The floor of the mouth and indeed the under surface of the tongue itself, were free from implication in the disease. There was no gland affection. The ulcer had never bled. The patient had never had syphilis, had been a careful liver, and, apart from the tongue affection, was in remarkably sound health. He presented no evidences of atheroma. The tongue was removed on Dec. 6th. Chloroform was given, Mason's gag was used, and the tongue was drawn forward by the double ligature, as advised by Mr. Whitehead. An ordinary pair of straight scissors was used. The frænum was first divided, and I then began to cut the mucous membrane and connective tissue in the floor of the mouth, between the tongue and the jaw, after the plan laid down by Mr. Whitehead, and more fully detailed by Mr. Lund. I had not, however, got very far before blood began to flow very vigorously from the wound. This should be at once checked, Mr. Whitehead says, by steady pressure for a minute with a sponge. This measure, however, had no effect on the bleeding, which continued in a very determined manner, and each snip made with the scissors added materially to the amount. Had I followed Mr. Whitehead's plan strictly I should not have proceeded with the operation until the bleeding had been checked, and having divided the mucous membrane connexions of the tongue I should then have divided the muscular attachments, cutting first one lingual artery and then the other, and securing the first vessel before the second was divided. Lastly, just before the separation of the tongue was effected I should have passed a loop of silk through the remains of the glosso-epiglottidean fold, so that the epiglottis may have been, if necessary, drawn forwards.

What was actually done was this: The hæmorrhage being considerable, and apparently unaffected by pressure and by drawing the tongue forwards, the best course appeared to be to remove the entire tongue as rapidly as possible, and to then deal with the bleeding when the organ was out of the way. Free hæmorrhage from a partly removed tongue appeared to be more serious than still freer hæmorrhage from the floor of the mouth with the tongue out of the way. Moreover, practice on the subject had shown that the entire tongue could be removed with scissors in about a minute, and I imagined that bleeding, even if severe, for that length of time could not lead to very grave results. I therefore at once removed the entire organ with the greatest possible expedition. When removed blood was seen to be pouring from the cut surface of the floor of the mouth for the moment during which that surface was of necessity exposed. As the tongue was taken out a large sponge was at once thrust into the mouth and pressed firmly down. The patient, having a little recovered from the anæsthetic, was able to clear his throat to some extent. The next point was to secure the linguals. The sponge was kept pressed down to the floor of mouth until it was considered that the oozing from the surface might have been checked. On its removal, however, blood welled from the general surface of the wound as freely as ever. The lingual arteries were readily seen as the blood from them was spurted directly out of the mouth. One of these vessels was immediately picked up with the torsion forceps, but with one twist of the forceps the end of the artery came off and the bleeding of course recurred. Although this occupied but a moment the hæmorrhage from the general surface of the wound was most profuse, and the blood by running down the throat threatened to produce asphyxia. The sponge was reinserted and kept firmly applied for a still longer period. On its removal blood still poured out from the wound surface, a clamp forceps was put on one lingual and an attempt made to ligature the other; but, although the ligature was applied with the greatest care by Mr. M'Carthy, who kindly assisted me, the end of the vessel came off with the ligature when the forceps was removed. The sponge was again applied. The bleeding so far had been terrific, and it is particularly to be noticed that it consisted of a general oozing from the cut surface, and not from the pumping of individual arteries. Had there been no oozing and the mouth been kept well open not a drop of blood need have run down the throat, even when the linguals were unsecured, because the blood from the vessels was directed straight out of the mouth. It was this general oozing, and not the bleeding from the linguals, that caused the severe hæmorrhage in Dr. Elder's case; and it is the possibility of this form of hæmorrhage that appears to be so serious a feature in this operation. Several attempts were made to ligature the linguals, but in each case the silk cut through. During these attempts, the oozing from the general surface occurred, with scarcely diminished vigour; and the hæmorrhage, indeed, was so serious that it would have been no matter of surprise if the man had died on the table. Ultimately the vessels were secured by passing a tenaculum beneath them, and by including in the ligature a good deal of the adjacent soft parts. In spite of long-continued pressure, the oozing of blood did not cease until the man was almost pulseless and ice had been for some time applied to the part. The brittleness of the lingual arteries and the softness of the structures adjacent to them were remarkable, and are difficult to account for. The condition of these parts served to render torsion utterly out of the question, and the ordinary ligature almost impossible. It would certainly be unfair to ascribe the hæmorrhage in this case to Whitehead's operation, inasmuch as in some minor points that procedure was departed from. But I am strongly of opinion that the results would have been still more grave had I closely followed the details of Mr. Whitehead's plan. If the floor of the mouth is well pressed up from without, it is not very difficult to pick up the lingual vessels after the tongue has been removed; but to have endeavoured in this case to have picked up one or other of these arteries when the tongue was only partly excised, and when free oozing was going on, would have been to still more seriously complicate the operation. Had the operation been discontinued until the first bleeding had been arrested, I imagine that the proceedings would have been indefinitely and dangerously prolonged; and considering the difficulties in the way of both torsion and the ordinary ligature, I believe that an attempt to secure one lingual artery, while the tongue was only in part removed, would have ended in failure. The present case might be exceptional, and it would be unjust to condemn an operation like that of Mr. Whitehead's upon the circumstances of a single case; but for my own part, in repeating the operation, I shall certainly adopt Billroth's precaution of first ligaturing both linguals. It would, I think, be safe to conjecture that the general oozing was, for the most part, from vessels derived from the lingual arteries; and it is stated, moreover, that the operation is comparatively bloodless when the preliminary ligature is adopted. As to the future of the present case, the man recovered from the effects of the operation better than could have been expected. There was no return of hæmorrhage. For two days and a half he was fed solely by peptonised enemata. The mouth was kept frequently washed out with Condy's fluid in iced water. On the third day he was fed through the nose, and the enemata were discontinued. He gained strength rapidly, and appeared to be doing remarkaby well, until December 12th, when symptoms of pyæmia, ushered in by a severe rigor, became evident; and of this blood-poisoning he very rapidly died. A post-mortem was refused by the friends.

Gordon-square, W.C.

[1] On the Removal of the Entire Tongue, 1880, pp. 23 and 25.

UNIVERSITY OF DURHAM.—At a Convocation held on March 14th, 1882, the following gentlemen were appointed Examiners for the First M.B. Examination:—Anatomy: Frederick Page, M.D.; H. Morris, F.R.C.S. Physiology: Thomas Oliver, M.D. Chemistry: John Thomas Dunn, M.Sc. Durh. Botany: James Murphy, M.D.

TROPICAL ABSCESS OF THE LIVER TREATED BY ANTISEPTIC INCISION; RECOVERY; REMARKS.

BY EDWARD HENDERSON, M.D., F.R.C.S. EDIN.,
MUNICIPAL SURGEON, SHANGHAI.

IN THE LANCET of Aug. 28th, 1880, I drew attention to the difficulty which surgeons may encounter in dealing with an abscess in the liver, from the want of sufficient adhesion between the surface of the gland and the walls of the abdomen or thorax, and I then pointed out that the diagnosis of such adhesion was founded on the occurrence of acute localised pain, the recognition of friction signs in or near the area of pain, and probably (although of this I had then no experience myself) by determination of the immobility of the liver during the movements of respiration. Since the publication of that paper I have thought it right to operate by incision in a case where I failed to recognise friction or to determine immobility, and I now record the details of this briefly, as an appendix to what I have already written

A. B——, a well-developed American, aged fifty-one, married, ten years resident in Shanghai, habits active and temperate, suffered for three weeks, and for the first time, from dysentery in the summer of 1878, and again for a fortnight, in September of 1879. Since the beginning of October, 1879, he has been free from any sign of bowel disorder, but has noticed during the winter a want of appetite for the morning meal which he has never experienced before in cold weather. On April 16th, 1880, he felt slight uneasiness in the epigastrium without any apparent disturbance of his general health. On the following day the epigastrium was tender to touch, but he did not feel ill. At seven o'clock in the evening he was suddenly seized with acute pain in the epigastrium, accompanied by a severe rigor which lasted for about ten minutes. On the 18th, a Sunday, he remained in the house, and suffered from pain in the right side of the epigastrium close to the rib margin. A mustard plaster seemed to aggravate his suffering. On the 19th I saw him for the first time, and made the following note: Temperature normal; tongue good; appetite fair; pulse 64 (he tells me that in health his pulse is usually between 50 and 60). The pain of which he complains is evidently severe; it is stitch-like in character, impeding the respiratory movements, and there is considerable tenderness in the painful area.

April 20th: Has slept little on account of the pain. Resistance (apparently muscular) is distinctly increased in the right half of the epigastrium. The area of hepatic dulness appears slightly increased. A careful stethoscopic examination gives a negative result; but it is impossible to persuade the patient to take a full inspiration, and he says he cannot bear the pressure of the stethoscope. Morning temperature 99·8°, evening 100·4°.—21st: In the right nipple-line comparative dulness is distinct on the fifth rib, absolute dulness begins on the sixth rib, and dulness extends a quarter of an inch below the costal margin; it measures 4¾ in. from the fifth rib, and 3¾ in. from the sixth rib. There are great tenderness and increased resistance in the right epigastrium, but no swelling. The tender area is dull to percussion, and its dulness is continuous with that of the liver. No friction-sounds can be heard. The lung-sounds are normal. The position of the heart's apex cannot be determined. He has vomited once during the day.

On the 24th Dr. Johnston (Shanghai) saw him with me, and together we determined the absence of friction signs; but there was the same difficulty in getting the patient to respire with sufficient freedom. The dulness between the fifth and sixth ribs appeared to me more marked than on the previous day. The patient had sweated tolerably profusely on the two previous nights.

25th: Dulness nearly absolute between the fifth and sixth ribs. What appears to be the heart's apex beat is felt indistinctly beneath the left nipple. Patient now looks very ill, and has lost all desire for food. He talks at times incoherently, but this is probably the result of morphia, of which one quarter of a grain is given subcutaneously from time to time to relieve pain.—26th: Heart's apex beat is seen and felt distinctly under the left nipple. Dulness in the right epigastrium is absolute, extending two and a half inches below the ensiform cartilage. Twice to-day a tendency to syncope has been manifested.—27th: Pulse is now 82. Pain in the epigastrium is very distressing when the effect of the morphia wears off in any degree, and slight pressure below the right costal margin makes him faint and sick.—28th: This morning, in consultation with Dr. Johnston, I decided to make an exploratory puncture with the aspirator, and if pus should be reached at a moderate distance from the surface, to complete the opening of the abscess by antiseptic incision. There was then slight prominence of the right side of the epigastrium, which was dull to percussion and very tender. There was, however, no redness or œdema of the skin. The mobility of the liver could not be tested owing to the continued embarrassment of the movements of respiration, and the same cause prevented the presence or absence of friction from being satisfactorily demonstrated. The details of the operation are probably at this date of little importance. The smallest needle of a Weiss aspirator was introduced rather nearer the costal margin than the centre of the dull area in the right epigastrium, and pus appeared in the glass connecting-tube at a depth of about two inches. With the needle retained as a guide an incision was made through the skin and subcutaneous fat, and this was cautiously deepened. At a depth of about two inches pus appeared in the bottom of the wound, and the dressing forceps were used to dilate the opening. Nothing was seen to indicate division between the peritoneal investment of the liver and the lining of the abdominal wall, but the fear of rupturing recent adhesions prevented me from endeavouring to secure by pressure the complete evacuation of the abscess; about eight ounces of thick red pus were obtained, containing fragments of what looked like coagulated lymph and necrosed liver tissue, the characteristic contents of an hepatic abscess in an early stage of its development. A large india-rubber drainage-tube was inserted. The whole was performed strictly in accordance with Mr. Lister's antiseptic precautions, and the usual gauze dressings were carefully applied. Owing to the imperfect evacuation of the abscess at the time of incision the dressings contained pus for a few days subsequent to the operation, and had, therefore, to be changed frequently, but the convalescence was uninterrupted. The wound was completely healed in the first week of June. My patient has since spent six months in America, and is now again in Shanghai, his health being fully restored.

The clinical histories of superficial and deep-seated abscess of the liver differ widely, the localised peritonitis, which results in adhesion of the gland to its surroundings, being the essential point on which these differences depend. When a superficial abscess points on the surface of the body the adhesions, which have usually been forming from the first, permit of free incision at an early date; but in the case of the deep-seated disease, adhesions are long delayed, may never form, or may never be sufficient to permit of safe operative interference. The above case belongs, of course, to the class of superficial abscess, and illustrates the good results which may be obtained in such cases by early interference and the use of Mr. Lister's antiseptic method. The diagnosis of sufficient adhesion in this case was incomplete, because founded solely on the acute localised pain and tenderness, and the fact that I was never at any time able to hear friction, certainly lessened the confidence I felt in advising and performing the operation. To elicit this valuable sign deep respiratory efforts are often needed, and my patient was never able to make these. Possibly the opportunity of hearing the sound was lost during the first three days of his illness. The mobility of the liver could never be satisfactorily tested.

I cannot leave the discussion of these matters without at least asking the question whether, after all, we must regard the formation of adhesions between the liver and the parietes as a necessary condition of safety when we open an abscess on the surface of the body under strict antiseptic precautions? I have, of course, throughout assumed that the operation cannot be undertaken safely without the union of the two surfaces, and have even shown in a former paper (THE LANCET, August 28th) that simple aspiration (not, however, strictly antiseptic) may lead to a fatal peritonitis, apparently by permitting the escape of pus into the peritoneal cavity. It is, however, of course possible that free incision, with sufficient drainage, may prevent the entrance of any considerable quantity of pus into the cavity of the peritoneum or pleura, and that the entrance of a small

quantity of aseptic pus may do no harm. How much dependence can be placed on this further experience can alone determine. The condition of a patient will, from time to time, compel the surgeon to operate without any certainty as to the state of the parts he is going to divide, and now that antiseptic incision has become the recognised mode of treating the disease, we shall doubtless soon be furnished with the data necessary for determining the question.[1]

INHALATIONS, AND HOW TO USE THEM.

By EDWARD BLAKE, M.D., M.R.C.S.,
LIFE ASSOCIATE OF THE SANITARY INSTITUTE, CORRESPONDING MEMBER OF THE FRENCH HYGIENIC SOCIETY.

THESE valuable medicinal agents have come so much into vogue, that a few practical notes thereanent will scarcely come amiss.

First, a few words as to how to use medicated vapours to the best advantage. Probably their use is never sufficiently continuous. A few minutes two or three times a day are really trifling with these agents, potent enough when properly applied. They should be used by the hour together, nay, in severe cases even during the major portion of the day. This can readily be accomplished by means of an excellent oro-nasal respirator, made for me by Messrs. Krohne and Sesemann.

This contrivance appears to combine the advantages of the respective instruments of Coghill, Curschmann, and of

G. H. McKenzie. The first is not comfortable, the second is cumbersome, and the third, though certainly the best, is neither very durable nor very permeable. The "Coghill," as made by Bost, of Birmingham, with nose-piece, has some recommendations, especially for dispensary use. It is cheap, simple, and washable. Messrs. Krohne and Sesemann's little apparatus covers both nose and mouth; it can be worn with complete comfort whilst reading, writing, or working. It is small and portable, weighing only two ounces, and can be easily carried in the pocket; its greatest advantage, however, is that it does not permit the patient to go on re-

[1] When in August, 1881, I expressed my belief that Dr. Macleod (Shanghai) and myself had been the first to apply Mr. Lister's newer methods to the treatment of hepatic abscess, I was, I now find, mistaken, and I have to thank Dr. Hunter Dickson for directing my attention, in the columns of THE LANCET, to a case treated by himself in this way in April, 1876 (see the October number of the Practitioner for 1876).

inhaling the same air. This is a very vital point, appreciated evidently by Dr. G. H. McKenzie.[1]

The diseases which have, in my experience, been the most benefited by inhalations are — Common coryza: camphor, ipecacuanha. Ozæna: phenol, thymol, chlorate of soda. Whooping-cough—first stage: ipecacuanha, belladonna, drosera, mephitis; second stage: phenol, benzole. Croup: iodine, bromine. Diphtheria: phenol. Syphilitic sore-throats: iodoform (masked by Peruvian balsam), phenol, thymol. Spasm of glottis: sulphurous acid, stramonium vapour. Bronchiectasis and putrid bronchitis, pulmonary abscess, gangrene, and cancer: phenol, thymol, kreosote, terebene, oleum pini sylv., oleum pini Canad., oleum pini pumil. If any of the above prove particularly repugnant to the patient, the odour may be masked by means of balsam of Peru, oil of cloves, or of cinnamon. For hopeless coughs chloroform may be added to any of the above. Asthma: amyl, eucalyptus, ipecacuanha, musk. Angina pectoris, epilepsy: amyl. To practical men many other drugs and many new applications of them will occur; those I have named are more suggestive than dogmatic.

The importance of disinfecting the sputa of tubercular subjects is sufficiently shown by the researches of Villemin, of Tappeiner, of Gerlach, and of Creighton, bearing on the ready diffusion of tubercle.

Whether or not we accept the views of Cohnheim in their present form, we are bound to give our phthisical patients the benefit of the doubt, and thus to secure them in every way within our power from the possible perils of auto-infection, leading to intestinal lesions far more grave than the most serious chronic lung disease.

Seymour-street, Hyde-park.

CASE OF RECURRENT TUMOUR OF THE MAMMA FIVE TIMES OPERATED UPON IN FOUR YEARS.

By FREDERICK PAGE,
SURGEON TO THE INFIRMARY, NEWCASTLE-UPON-TYNE.

IN February, 1877, a woman from the neighbourhood of Haltwhistle consulted me on account of enlargement of her left breast. She was stout and particularly healthy looking, thirty years of age, unmarried, and accustomed to spend much of her time in the open air in the country. Twelve months before I saw her she received a blow on the left breast from the horn of a cow she was milking. Three months after the blow she noticed an enlargement of the breast. She had no pain, but the enlargement increased, and she applied to me to relieve her from the inconvenience which the large size of her breast caused her. Upon making a free incision through the skin I found, lying between the breast and the muscles of the chest, in a well-defined cellular bed, a smooth, dense, ovoid tumour. It turned out of its site readily. There was very little bleeding, and the breast, which had been thrust on one side by the growth, but was apparently in no way connected with it, was replaced. The tumour weighed nearly three pounds, and though the incision was ten inches in length the wound healed readily, principally by primary union. I did not see the patient again till July, 1881, and then she presented a very remarkable appearance. Over the site where the nipple of the left breast should have been there was a large ulcerated purple-coloured tumour. It was as big as the half of an ordinary-sized cocoanut, and from its base, I might almost say in every direction, extended large keloid growths of a bright-red colour. These keloid extensions involved to a considerable extent the skin over the right breast; but, as I have said, they extended in all directions around the base of the tumour, so that fully half of the anterior chest wall was involved. She told me she had undergone three other operations since I had seen her.

About nine months after I removed the tumour I have mentioned, another similar growth, weighing three pounds, was removed from the upper extremity of the cicatrix resulting from my operation. The wound healed rapidly. In twelve months there was a return of disease, and the patient then came under the care of my friend, Dr. J. McDougal,

[1] Lectures on Diseases of the Throat, Edin. Med. Sch.

of Carlisle, who removed the breast and a mass of disease which together weighed seven pounds. Again the large wound healed quickly, but in eleven months there was a return of disease, and this also was removed. Nine months after this fourth operation she returned to me, presenting the appearance I have described. Notwithstanding all she had gone through she still had the look of being a healthy woman. There was no glandular enlargement, no sign or symptom of chest disorder, no appearance whatever of any deterioration of general health. The extent of the disease, the absolute impossibility of covering a wound so very large as that which must be made to remove thoroughly the whole of the skin involved, made an operation a somewhat serious and doubtful procedure. By the advice and with the aid of my surgical colleagues, however, I determined to remove freely the growth and the whole of the implicated skin. This was readily done without any considerable amount of bleeding, the mass removed weighing four pounds. The resulting wound was one of the largest I have seen made by the knife. Contraction went on rapidly, and in four months' time the entire surface was healed. What the result of the case may be it is impossible to say. At present there is no sign of return, and I hope the disease has been eradicated. I am the more inclined to indulge this hope from the fact that this last operation was followed by prolonged and profuse suppuration, and I believe if the old operation of amputation instead of the more modern and elegant one of excision were oftener performed in cases of cancer of the mamma, the disease would be more thoroughly got rid of and return be less frequent. Mr. G. E. Williamson has been kind enough to make a microscopical examination of the tumour, and pronounces it to be a spindle-celled sarcoma.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

OVARIOTOMY; CLINICAL REMARKS.

(Under the care of Dr. BARNES.)

THE following case of ovariotomy presents several points of interest. A married woman, aged thirty-three, having had two children, the last six years ago, was admitted to Wright's ward in January last. She had been seized in October with severe pain in the left abdomen. It subsided somewhat, but returned with increased severity at Christmas. The pain continued, with dysuria and dyschezia. On admission, the pulse was rapid, and the temperature 100° F. There was retching; the abdomen was distended, very tender, and could not bear examination; menstruation scanty. The conditions, local and general, improved under rest and sedatives. A fluctuating, tense tumour was defined, extending from the pubes to midway between the umbilicus and the margin of the abdomen on the right side, and to the level of the umbilicus. The temperature afterwards rose from 100° to 102·5°, and there were again pain and fever. Under the use of aconite the temperature was reduced; but the evidence of pelvic and abdominal inflammation and septicæmia continued, and her condition seemed so critical that a consultation was held, when it was determined to operate without delay as the only prospect of rescue. This was done by Dr. Barnes on Feb. 28th. The cyst was universally adherent, most of the adhesions being recent; the surface of the cyst and the contiguous structures were intensely vascular. The adhesions were mostly separated by the hand, but in several places catgut ligatures were applied. The tumour, when tapped, discharged a thick, offensive, dark-green fluid, together with broken-down necrosed pulpy masses. The pedicle was found in the left side. Adjacent to this the cyst was so broadly and closely adherent by vascular processes to the intestines that ligatures could not have been used without risk of injuring the intestine. This portion of the cyst was therefore cut free from the rest, so as to leave the adhesions undisturbed. The inner surface of the cyst wall was peeled off, so as to leave only the harmless outer layers. Then it was found that the pelvic peritoneum and bladder from which the cyst had been detached was bleeding freely *en nappe*. No ligatures could be applied, so the bleeding surface was swabbed with perchloride of iron. This stanched the bleeding to a certain extent, and the wound was closed. The woman's progress after the operation gave rise to anxiety; the temperature rose at times. Once it was brought down by cold water swathes on the arms, as practised by Thornton. The extensive peritonitis set up before the operation persisted some time afterwards. At the end of a month she was doing well.

The following comments on the case are extracted from a clinical lecture by Dr. Barnes:—"1. What was the cause of the inflammation which invaded the entire surface of the cyst and the contiguous peritoneum? In some cases peritonitis is undoubtedly set up by perforations, large or small, through the cyst walls, letting the irritating cyst fluid come into contact with the peritoneum. In this case no perforations could be discovered; and the cyst walls were everywhere unusually thick, consisting of several layers. The explanation is that some of the irritating contents of the cyst permeated the cyst-wall, not by osmosis, but under pressure. The tension of the cyst had become so great that fluid oozed through. All the animal tissues are subject to this process. In no other way can the universal inflammation be accounted for. 2. Connected with this permeation of septic fluid through the cyst-wall is the septicæmia from which the patient suffered. The source of this was certainly the foul matter in the cyst. 3. The leaving a portion of the wall of the cyst so as not to injure the bowel. In this case the offensive secreting inner layer of the cyst was easily peeled off. Sometimes this is hard to accomplish. In any case it is generally safer to leave a bit of the cyst wall when very intimate, and vascular adhesions unite the cyst to the tender bowel, to the under surface of the liver, or come dangerously near to the splenic veins. Dr. Miner first proposed the entire enucleation of ovarian cysts (1869)—that is, the peeling away the whole of the secreting inner surface, leaving the outer or peritoneal coat with all its adhesions untouched. This proceeding could have been carried out in this case, but it was thought better to remove as much of the cyst as possible. 4. The third great clinical point was the demonstration afforded of the principle of removing the source of the irritation. By a tardy though timely operation the cause of the inflammation and of the constitutional disorder was removed, and the patient was rescued from impending death."

NEWCASTLE-UPON-TYNE INFIRMARY.

ABDOMINAL TUMOUR; RAPID GROWTH; DIFFICULTIES IN DIAGNOSIS; DEATH; POST-MORTEM, SHOWING MALIGNANT DISEASE OF MESENTERIC GLANDS.

(Under the care of Dr. PHILIPSON.)

FOR the following notes we are indebted to Mr. F. J. Spranger, resident assistant, and Mr. C. Haig-Brown, clinical clerk.

R. S——, a seaman, aged sixty-one, admitted Nov. 3rd, 1881. The patient had travelled a great deal in the tropics. Nine years ago he had "fever and ague," and the ague troubled him greatly for the subsequent seven years. During the last ten years, however, he has been quite free from any symptoms of ague. No other illness; no history of syphilis or of alcoholism. Eight months ago a right inguinal hernia was caused by lifting a heavy weight. A truss was worn, and up to five months ago patient experienced no inconvenience. He then first began to complain of sudden shooting pains above the umbilicus. These have continued with intervals ever since. Six weeks since he became worse, with swelling of the abdomen, and got steadily worse up to admission. Lately he has vomited frequently, about half an hour after taking food—only the contents of the stomach; no hæmatemesis or melæna.

On admission, the patient presented an old and feeble aspect. Marked arcus senilis. The skin of the exposed face and hands had a markedly icteric tinge. Conjunctivæ not jaundiced. Abdomen uniformly distended; superficial veins of abdomen not distended. No bulging in the flanks.

General tenderness on palpation. A distinct feeling of resistance in left lumbar, hypochondriac, and umbilical regions. Where this feeling of resistance exists, there is dulness on percussion; elsewhere the abdomen is tympanitic. The flanks were soft; no fluctuation detected. The tumour seemed to be considerably fixed posteriorly, but it moved during respiration anteriorly. On deeper pressure the tumour was felt to be very hard. No pulsation; no bruit. When the patient breathed deeply, and on pressure, a fine crepitant feeling was noticed all over the abdomen. Breathing entirely thoracic. Abdominal walls freely movable over tumour. On mapping it out, the general outline was somewhat square-shaped, occupying the left half of the umbilical and the anterior half of the left lumbar regions. Above epigastric region was slightly occupied. The left hypochondriac was occupied up to the normal splenic dulness. Below the hypogastric and left inguinal regions were slightly encroached upon. The whole outline was exceedingly irregular, and deeply notched towards the umbilicus. The tumour and the spleen seemed continuous. The patient vomited the contents of the stomach occasionally. The bowels were somewhat constipated. Ordered a simple enema when necessary, and a diuretic mixture three times daily; poppy fomentations to abdomen; opium internally every three hours. The liver seems to be in every way normal.

Nov. 15: Vomiting has ceased. Whole abdomen much distended, rigid, and painful, and very tender all over. The abdominal walls are œdematous. Distinct fluctuation wave in abdomen, and on trying to elicit the crepitation in abdomen it is found to have almost disappeared. Legs and scrotum very œdematous. Upper part of tumour now much harder and more prominent. Abdominal walls not adherent. Has rapidly lost flesh since admission.—26th: Tension of abdomen much subsided. There is free abdominal respiration. Slight crepitus in abdomen remains. No fluctuation wave. Tumour perceptibly larger, and superficial veins of abdomen are getting blue and distended.

Dec. 10th: Constant "aching and ripping" pains in abdomen over tumour. Has lost 22lb. in weight since admission. The tumour enlarges in a direction downwards, forwards, and inwards; it is hard, nodulated, and tender, and not at all adherent to abdominal walls. There is considerable tenderness on palpation over the lower border of the liver. Owing to the tension of the abdomen the edge of the liver cannot be felt, but there is a line of resonance separating the hepatic dulness from that of the growth. No jaundice; no albuminuria.—25th: Forty inches round just above the umbilicus. Rapid increase of the tumour during the last week, with great tenderness over it on palpation. Great œdema of the lower extremities and scrotum. Patient rapidly failing. The abdominal tenderness is too great to allow further palpation over the tumour.—28th: About a tumblerful of clear reddish fluid was drained away from the peritoneum with a Southey's cannula and tubing.

Jan 9th: The tumour has increased in size in every direction, distending the abdomen greatly; much pain. The growth is hard and nodulated, especially at the edge under the ensiform cartilage down to the umbilicus. Occasional vomiting of the contents of the stomach; but the appetite remains fair, and the bowels regular.—25th: Increased size of tumour and distension of abdomen. Superficial veins of abdomen very prominent.

Feb. 5th: Vomiting of blood several times lately. The hepatic dulness continuous with that of the growth. Very great tenderness over liver, so that the region can hardly be touched. No constipation.—11th: Died. Had been vomiting blood up to shortly before death. The pain has been great, but not excessive. Great œdema of lower limbs and scrotum. There had been no constipation. Morphia had been given regularly subcutaneously.

Necropsy, thirty-six hours after death, by Dr. DRUMMOND.—Abdomen greatly distended; lower limbs œdematous. A large quantity of dark-brown, clear fluid escaped when the abdomen was opened. A large tumour presented, occupying almost the entire left side, extending over to the right. In the epigastric and umbilical regions the tumour was densely adherent to the front wall. The intestines were thickened and matted together by a dense network of lymph. Parietal peritoneum much thickened and of a dark slate colour. A very large mass, weighing sixteen pounds, was removed with difficulty, being firmly adherent to the viscera in the cavity. Liver small and compressed. The mass was irregularly globular in shape, and also nodular, the nodules being in some places as large as the fist; very firmly adherent to the left aspect of the growth was the spleen; the left lobe of the liver was broken up in being removed. On section it was found to consist of new growth of pinkish-yellow colour generally; some parts were of cartilaginous density, others soft, like brain matter, and scattered throughout the growth were cysts varying in size, and containing darkish brown-coloured fluid. In some parts a considerable quantity of melanotic pigment was found. On attempting to isolate the growth, the left kidney, liver, spleen, and pancreas were eliminated, and the conclusion was arrived at that the tumour was associated with the mesenteric glands. The other organs were healthy. On microscopic examination its carcinomatous nature was very distinct.

Remarks by Dr. PHILIPSON.—Upon admission, from the history of the case, more especially the attacks of ague, the situation of the tumour, its notched anterior border, and from its being near the surface, no intestine being in front, it was conjectured that the tumour might be an enlarged spleen, the morbid condition being that of chronic hypertrophy. Later, from the rapid increase of the swelling, its outline being more irregular, and from the supervention of peritonitis, with rapid emaciation, it was felt that the indication pointed more towards malignancy than hypertrophy. Further, when the extreme rarity of carcinoma of the spleen was had in remembrance, it was considered highly probable that the swelling was not connected with the spleen, but would be found to be associated with the mesenteric glands. At the autopsy the latter supposition was found to have been correct.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Endothelial Cancer of Brain.—Psammoma.—Filaria Sanguinis.—Lymphoma.—Urinary Calculus with Shell for Nucleus.—Cancer of Lung.—Acne Keloid.—Prurigo.—Papillary Ovarian Cysts.—Perforating Ulcer of Foot.—Columnar Epithelioma of Liver.

THE ordinary meeting of this Society was held on Tuesday last, Dr. S. Wilks in the chair.

Mr. EVE showed a specimen of Endothelial Tumour of the Brain, which was taken from a man aged thirty years, who suffered from symptoms of brain disease for about three months before his death, which took place from coma. The specimen showed a medullary tumour occupying the superior and anterior portion of the cerebellum, and projecting forwards into the transverse fissure. The aqueduct of Sylvius was obliterated. On microscopic examination the tumour was found to be composed, to a large extent, of rounded papillæ of connective tissue, covered by a single layer of round endothelial cells. These cells formed in places a continuous lining to alveoli, or were grouped within irregular spaces in the connective tissue. In order to illustrate further this form of disease he had brought from the museum of St. Bartholomew's Hospital a portion of the brain of an elderly woman containing many small round tumours in different parts of its cortex. These tumours also were composed of large endothelial cells enclosed within well-defined alveoli, formed by a tissue resembling neuroglia. In both cases the tumours doubtless originated in the endothelial lining of the inner surface of the pia mater, or from its prolongations around the vessels passing into the brain. These specimens resembled the tumours described by Billroth as villous or plexiform sarcomata of serous membranes, and by Wagner as endothelial cancers. In the character and arrangement of the cells composing them they resembled the cancers; but since the membranes of the brain were developed from mesoblast, they were, theoretically speaking, sarcomata; hence the discrepancy in nomenclature. There were, however, so many flaws in the theory that all cancers originated in tissues developed from epiblast or hypoblast, that he (Mr. Eve) preferred to name them after their anatomical characters and call them cancer.—Mr. EVE also exhibited a Calcareous Tumour found in the brain of a young man who died of apoplexy. The growth was about the size of a walnut; it was spiculated on the surface, and was partly in the posterior extremity of the

third ventricle, and partly in a cavity in the left optic thalamus. It was quite free except below, where it was bound down by fibrous tissue within the brain substance that could be traced to the pia mater; this tumour he considered to be a psammoma, originating in the pia mater at the base of the brain, or one of its prolongations around a bloodvessel. According to Billroth and others, the characteristic elements of these tumours are calcified globes, composed of endothelium, probably derived from the prolongations of the endothelium of the pia mater around the bloodvessels. The globes resembled concretions normally found in the pineal gland, known as brain-sand. The apoplexy from which the patient died was probably due to some vegetations in the mitral valve, giving rise to embolism, and was in no way connected with the tumour. A specimen was also exhibited by Mr. EVE, which showed adult Filaria Sanguinis in the lung of a camel. The animal had suffered from a wasting disease for a year, and every drop of blood was found to contain ten or twelve embryo filariæ. The camel was killed by decapitation, and on examination adult filariæ were found in tangled masses within the aorta and the pulmonary artery and branches. Dr. Lewis, to whom the specimen had been sent, said that though the embryo was like that of the filaria sanguinis hominis, the adult was much larger, and specifically different.—Dr. WILKS asked if there was any other disease in the first cases. Formerly it was considered impossible that cancer should arise primarily in the brain.—Mr. EVE said there were no other tumours, and he believed the growth had originated as a primary cancer of the endothelium.—Mr. BUTLIN proposed to class these tumours separately as endotheliomata; they arose from the endothelia. He had formerly classed them among sarcomata, as being more closely allied to them than to cancers, but he now proposed to put them in a class by themselves.

Dr. HOBSON showed drawings of specimens of a case of Malignant Lymphoma. A girl, aged four years, was admitted into Hackney-road Hospital with jaundice and œdema of eyelids and feet. Liver and spleen enlarged, several firm elastic swellings in right groin. Patient gradually got weaker and died. Post mortem a large growth was found in right groin, buttock, and iliac fossa, also involving the pancreas and obliterating the common bile-duct. Secondary growths were found in the liver and kidneys. Microscopical sections of the apparently healthy parts of the kidney and liver showed the growth to be extending along the bloodvessels, as had been described by Greenfield. The growth occupied the portal but not the hepatic areas of the lobules of the liver. It was therefore not a metastatic growth, but a hyperplasia of a pre-existing tissue. The growth resembled both acute tuberculosis and Hodgkin's disease.—Dr. PAYNE had not seen Dr. Hobson's drawings, but he asked whether the small miliary growths differed essentially from tubercles; because he had known several cases in which, after chronic glandular enlargement, there was general tuberculosis, and he had then considered the primary disease tubercle. He thought it was difficult, even if not impossible, to separate Hodgkin's disease from tubercle.—Mr. BUTLIN had often felt the same difficulty as Dr. Payne in separating hypertrophy, inflammation, and tumours of lymphatic structures. A malignant disease follows the ordinary law of taking on closely the character of the tissue in which it grows; and as a round-celled sarcoma is closely like lymphatic gland tissue when occurring in a gland it becomes exactly like the pre-existing structure.—Dr. WILKS remembered that this difficulty had been raised years ago; many cases of Hodgkin's disease were originally reported as cancer. He supposed Dr. Hobson has used the word "malignant" in its clinical sense only.—Dr. HOBSON did not think the small growths were like tubercle.

Mr. ROGER WILLIAMS showed a specimen from a boy aged eight. He had suffered from pain in micturition for eighteen months, and had often passed blood, but had not had retention till two days before admission to the hospital. Pain and swelling came on in the scrotum and perineum. On examination extravasation of urine was found; free incisions were made, and the boy was also circumcised. On withdrawing a sound a distinct click was produced. An incision was made on a grooved staff in the middle line, but no stone was detected. Next day a small shell was passed from the wound. The boy died from suppression of urine. The right kidney was found congested. The left was a mere sac full of pus. The ureter was greatly dilated; a small diverticulum was found opening into the membranous urethra, where the shell had lodged, and had become coated with urates. The shell was small, and probably a whelk shell. There was no history to show how the shell got there.

Dr. BEDFORD FENWICK showed a specimen of Mediastinal Tumour obtained from a man, aged twenty-two, recently under the care of Dr. S. Fenwick. He was attacked with cough in April, 1881, and then with dyspnœa, which increased very rapidly. On admission to hospital there was found normal percussion and auscultation sounds over the left chest, but there was absolute dulness over the right side from the second costal cartilage downwards; this dulness moved a little; there was no tactile vibration, or vocal resonance, or breath sound. In January the veins over the back were enlarged, later on enlarged glands were noticed above the clavicle, and the day before death œdema of his right arm set in. Post-mortem: His right lung was infiltrated with a firm substance, the mediastinal glands were enlarged and yielded a milky juice on section. The tumour was made up of large epithelioid cells embedded in a fibroid matrix. In 87 per cent. of cases of primary cancer of the lung only one lung is attacked, but in cases of secondary cancer the disease affects both lungs in 93 per cent. of the cases. He believed the case to be one of primary cancer of the lung.—Mr. EVE asked if the tumours bore any distinct relation to the bronchial tubes; in one case he had seen the cancer evidently originated from the mucous glands of the bronchial tubes.—Mr. PARKER had reported to the Medical and Chirurgical Society a case of primary cancer of the lung which had been mistaken for pleuritic effusion and tapped.—The PRESIDENT said that it used to be held that true cancer was found in the true lung tissue in secondary cases only, and that in cases of primary cancer the growth originated in the peribronchial tissue.—Mr. PARKER said that in the fœtus the alveoli were lined by epithelium like that of adult bronchial tubes, and only became altered in shape from the distension of the air cells, and from them true cancer might develop.—Mr. BUTLIN suggested that the specimen should be referred to the Morbid Growths Committee. The preparation in which one lung only is affected with cancer in cases of secondary disease depends a good deal upon the seat of the primary disease; thus when secondary to cancer of œsophagus it was more frequent on the right side.—Dr. LONGMORE asked if the fluid withdrawn when the man was tapped had been examined microscopically.—Dr. S. WEST thought the tumour began in the mediastinal glands, and had radiated and spread into the lungs along the bronchi. In some of these cases there were both tumour and pleuritic fluid, but in cases of "dry tapping" we must not always conclude there was no fluid, as the chest wall may be unable to yield.—Mr. STANLEY BOYD said he saw last autumn a woman whom he was asked to examine to determine whether it was a case of tumour or pleuritic effusion. The right side was quite dull; fluid was diagnosed, but on tapping no fluid was obtained, and after death a primary tumour of the lung was found, which had spread through the diaphragm, and into the liver, but not into the mediastinal glands. He had had difficulty in deciding upon the extent and nature of the growth.—Dr. WILBERFORCE SMITH asked if the intercostal spaces bulged, and whether the affected side was enlarged.—Dr. FENWICK had not examined the bronchi specially; the mass seemed quite uniform. Of twenty cases of primary cancer of the lung the disease affected the left lung in eleven cases, and the right in nine. The fluid removed was very rich in fibrin. The affected side was enlarged, and the spaces bulged very much on coughing.

Mr. MORRANT BAKER exhibited a Case of Disease of the Skin, to which the name "Acne Keloid" has been applied by Bazin, and "Dermatitis Papillomatosa Capillitii" by Kaposi, but which he believed had not been hitherto described in England. The disease occupied the nape of the neck in the form of a raised smooth patch, rather larger than a shilling, which was obviously formed by the confluence of many small papules and pustules, examples of which were scattered irregularly around for a distance of about an inch and a half. Near the margin of the main tumour the hairs which issued from it were grouped in a peculiar manner in small brushes of half a dozen or more, while each of the small separate tubercles or pustules was perforated at its summit by a single hair around the follicle of which the tubercle was evidently developed. The consistence of the patch seemed firm, but not so firm and tough as ordinary keloid. Its sensitiveness was about the same as that of the surrounding integument. The disease gave but

little trouble usually, but was liable to attacks of congestion and irritation, and at such times when rubbed or scratched it bled slightly. At other times there was no discharge of any kind from it, and at no part was it ulcerated or even excoriated. The patient was a butcher, strong and healthy, aged forty-seven. The disease began four years ago, and had gradually attained its present size. Mr. Baker remarked that he had seen one other case of the disease in a patient between fifty and sixty years of age, in whom it caused great irritation. The general characters of the disease were exactly like those in the patient exhibited to the Society. In this instance the tumour was destroyed successfully by nitric acid. Of the two terms under which the disease had been described, Mr. Baker remarked that he preferred at present that of "acne keloid" as the more distinctive, and as expressing fairly well the general aspect and characters of the affection. It was very possible that a better name might be found after further study and knowledge of the disease.—Mr. EVE thought there was a specimen of this disease in the St. Bartholomew's Hospital museum, which was removed from the back of the neck of a negro. The character of the specimen in relation to the hairs was exactly that described by Mr. Baker.

Mr. MORRANT BAKER also showed two cases of Prurigo of Hebra; one a boy of twelve, and another a lad of seventeen. Both cases were characteristic; the prurigo bubo was well marked in each groin, and in the axilla of one patient. For many years the existence of this disease in England had been denied; but at the time of the Congress these specimens were shown to foreign dermatologists, and they agreed that they were genuine cases. In both the disease had existed since early infancy; in the younger patient there was little of the eczematous condition which is apt to be so prominent a feature of the disease.—Dr. PAYNE asked if the disease affected the flexures. He had recently had a case which he thought was Hebra's prurigo. The patient had eczema from time to time, but the papules were developed as much on the flexor as on the extensor side of the limbs, which was quite contrary to Hebra's original description.—Dr. CROCKER had three cases under his care at the present time; and he was sure the disease was more common than had been supposed.—Mr. B. SQUIRE had seen a case exactly like Mr. Baker's case of acne keloid in a man who had had it eight years. It occurred at the edge of the scalp and was limited to the scalp.—Dr. WILKS asked what treatment was used for the cases of prurigo.—Mr. BAKER said that the disease could be benefited, but not cured.

Mr. ALBAN DORAN exhibited some specimens illustrating the seat of origin of cysts of the ovary containing papillary growths. Those which have glandular masses growing from their interiors are developed in the tissue of the parenchyma among the Graafian follicles. Hence they rapidly fill up the free part of the ovary, altering its entire form, as seen in a small specimen exhibited by Mr. Doran, and developed into large cysts distinct from the broad ligament and tube. On the other hand, the cysts containing papillary growths arise from relics of the Wolffian body within the tissue of the hilum of the ovary. Hence they are identical in character with certain broad ligament cysts developed from other Wolffian relics situated in the ligament between the parovarium and the uterus; and hence, too, being situated at first in the hilum, they leave the free part of the ovary intact and advance between the layers of the broad ligament, so that when large they have no pedicle. In a small specimen the cortical part of the ovary was seen quite separate from the cysts; in a larger specimen the growth was shown enclosed by the layers of the broad ligament, into which it had insinuated itself.

The following card specimens were shown:—Three specimens of Perforating Ulcer of the Foot, by Mr. Eve; specimen of Columnar Epithelioma of the lower end of the Colon, with Secondary Deposits in the Liver, by Mr. Stanley Boyd.

CLINICAL SOCIETY OF LONDON.

Chromidrosis.—Nephrectomy.

THE ordinary meeting of this Society was held on Friday, April 14th, Thos. Smith, Esq., one of the Vice-Presidents, in the chair. Two cases of nephrectomy were communicated, and the discussion on this subject concluded. Dr. C. T. Williams showed a case of phthisis benefited by long residence in high altitudes.

Dr. CROCKER read the report of the Committee on Chromidrosis. One of the cases investigated was proved to be due to malingering, the colour being produced by black-lead. In another case—a genuine one—the pigment was found to be deposited in fine granules in the epithelium, the sebaceous glands being specially affected. The Committee concluded that chromidrosis has an undoubted existence, but is often simulated. They did not think the pigment was indigo, but did not determine its exact nature.

Dr. BARLOW and Mr. GODLEE contributed a case of Extirpation of the Kidney for Calculous Pyelitis. The patient was a laundress, aged fifty-seven, of somewhat intemperate habits, who came under Dr. Barlow's care in June, 1881. Her family history presented no feature of interest, and though she recollected, on being carefully questioned, that she had passed a small calculus twenty-six years previously, she maintained that the present illness dated only from three months previously. She suffered when first seen a considerable amount of pain, which prevented her from getting about, and she had at one time a good deal of œdema especially of the right leg, which subsequently disappeared. The urine was in fair amount, it contained a large quantity of pus, but not much more than about two-thirds of the normal quantity of urea was secreted in the twenty-four hours. The right kidney was easily felt forming a large tumour in the right hypochondriac region. The woman was somewhat anæmic and had a slight cardiac murmur, but was otherwise in good health. The amount of pain and the quantity of pus in the urine seemed to justify the authors in suggesting the operation to the patient, notwithstanding her comparatively advanced age, though not in pressing it. After due consideration she consented to its performance. The existence of calculus had been previously ascertained by puncturing the kidney with the needle of the aspirator. The operation was performed with all antiseptic precautions by Mr. Godlee on July 14th, that chosen being the abdominal section. It presented great difficulty from the density of the structures round the kidney, but was satisfactorily accomplished; the patient at the time suffering remarkably little from shock. A morphia suppository was at once administered, and some tincture of opium was given by the bowel later in the day. The patient appeared to be progressing favourably for the first twelve hours, and then passed into a gentle sleep. When aroused next morning it was found that the temperature was high, that little or no urine was being secreted, that the respiration was becoming very shallow, and that the patient was in a state of semi-consciousness. From this condition she did not recover, but died about twenty-four hours after the operation. At the autopsy the left kidney and the other viscera were found to be practically healthy. It was suggested that the amount of morphia administered had something to do with the patient's death, and that possibly the carbolic acid absorbed during the operation may have helped to this result; though doubtless the suppression of urine, from whatever cause, was the most important factor. The parts removed and half the kidney of the opposite side were shown at the meeting.

Mr. HOWARD MARSH read notes of a case of Pyelitis, in which the kidney was explored and partially removed; death occurred in thirty-eight hours from suppression of urine. The patient was a blacksmith, aged thirty-five, who was admitted into St. Bartholomew's Hospital in October last. He had had severe pain in the right loin for three years, and for eighteen months the urine had been ammoniacal and had deposited a light-coloured sediment; he had never noticed blood in the urine. On admission he was pale, with a worn anxious look. The urine showed pus equal to one-third its bulk on standing, and also a small amount of blood; it was highly ammoniacal and very fetid. The man complained of pain shooting down from the right kidney in the course of the ureter to the testis. There was some tenderness on pressure over the kidney, but nothing abnormal could be felt either in the loins or anteriorly. There was no stricture of the urethra, and no stone in the bladder. The patient was kept in bed, and, in order to ascertain whether his symptoms depended on any bladder disease complicating the mischief in the kidney, the bladder was injected every morning for ten days with one grain of quinine dissolved in an ounce of slightly acidulated water, and subsequently with water gradually raised to a temperature of 120°. He was also put on a pure milk diet. But none of these means improved the condition of the urine. At the end of two months, as he was still passing large quantities of fetid pus, the kidney was explored through an incision

extending downwards and forwards from the last rib to the crest of the ilium. It was found greatly enlarged, saccullated, and very firmly bound down by dense inflammatory tissue. On stripping off its capsule, a matter of great difficulty, and puncturing its cortical substance, a large quantity of thick and strong-smelling urine escaped. As the whole kidney was evidently disorganised, an attempt was made to remove it, but it was so firmly adherent that this could not be done. What had been exposed was therefore included in a double ligature, and removed by curved scissors. No hæmorrhage of any moment occurred during the operation; but the patient died in thirty hours from complete suppression of urine. On post-mortem examination the right kidney was found converted into a number of large cysts. Three inches below its commencement the ureter was so narrowed that its canal would only admit an ordinary probe; above this point it was considerably dilated. These conditions seemed to have been produced by the healing of an ulcer in the ureter—perhaps of a tubercular character. The left kidney had the appearance of being fairly healthy; it weighed 6 oz. Mr. Marsh remarked that he was induced to resort to an operation in this case, though in consequence of the patient's general condition he did so very unwillingly, in the hope of doing good either by extracting a stone or establishing free drainage, or of removing the kidney if it proved to be extensively diseased. It might be a warning for future cases that the condition of the kidney was much worse than there seemed reason to anticipate. Though it could not be felt during careful examination under ether, it was very large; it was so far destroyed that very little renal structure remained, and it was so firmly adherent that its removal was found to be impracticable. Seeing how limited is the space afforded by the incision in the loin, the author thought that experience was likely to show that the best method of removing large kidneys, or kidneys that were bound down by firm adhesions, was by abdominal section, the incision being made just external to the rectus muscle. He concluded by remarking that though recent cases showed that the kidney might be safely explored by the lumbar incision, and though calculi of small size might be safely extracted from kidneys that are structurally healthy, further experience alone could teach us in what cases the kidney might be safely removed. The liability to suppression of urine from the opposite kidney must be carefully borne in mind. He thought the removal of the kidney in persons over thirty years of age was, on this account, one of the most dangerous proceedings in the whole range of legitimate operative surgery.—Mr. CLEMENT LUCAS referred to the great importance of the age of the patient as a factor in the success of the operation of nephrectomy. He believed his own patient, aged thirty-six, was the only instance of success in a patient over thirty. He thought Mr. Marsh would have found that a vertical incision, in addition to the one he made, would have given him far more room. Langenbuch's incision on the outer side of the rectus muscle was undoubtedly better than the median incision when the abdominal operation was chosen. Mr. Lucas strongly recommended that the ureter should be divided before the pedicle was tied, as it gave much more room, and allowed the lower end of the kidney to be turned up.—Mr. BARWELL thought cases of failure were more valuable to the Society than cases of success; for it was easier to determine exactly the causes of failure than those of success. When the kidney was not large enough for its removal to be impossible through the loin, he thought the lumbar operation far the best. In one of his own cases he had great difficulty in removing the kidney, and in that case he originated the L-shaped incision referred to by Mr. Lucas. He tied and removed three portions of the organ before he got the whole mass out. In neither of his cases had suppression of urine occurred. He thought that tying one kidney might cause reflex suppression of the function of the other kidney. After removing a suppurating kidney the amount of pus in the urine was not at once diminished, as pus continued to come from the dilated ureter and the bladder. In his own two cases the amount of albumen in the urine greatly increased for a time. It was very difficult to apportion the diet after the removal of one kidney; alcohol was likely to cause congestion of the remaining kidney, even up to suppression. He was doubtful whether nephrectomy was not to be advised in place of nephro-lithotomy, as being a more radical procedure. He had a case now under his care with symptoms like those in Mr. Marsh's case, and if, on examining the kidney, he found a stone he thought he should remove the whole organ.—Dr. SOUTHEY said that in cases of pyelo-nephritis the first thing to do was to examine the urine to see if the patient passed sufficient urea for his body-weight; this was the circumstance of prime importance. No operation should be undertaken when the amount of urea was so low as to render it very probable that the other kidney was badly affected. Such patients were very bad subjects for any operation. If the urea was in fair amount the kidney might be tapped and washed out antiseptically. In a case under his own care the organ was tapped by two trocars and washed out by alternating currents; this was done two or three times, and considerable contraction of the abscess cavity ensued. Subsequently the abscess was opened antiseptically, and it healed up and the woman left the hospital, not passing any pus in the urine.—Mr. THOMAS SMITH hoped that members would act on Mr. Barwell's advice and communicate any unsuccessful cases of nephrectomy they might have had.—Dr. DYCE DUCKWORTH referred to the case of a boy, aged thirteen, suffering from paroxysms of severe pain in the left loin about once a week, and a few hours after each attack passing pus in the urine for about a day. This was uninfluenced by any treatment. On his second admission to hospital Mr. M. Baker saw the case and diagnosed calculous pyelitis. Mr. Baker explored the kidney and let out a large quantity of pus from the pelvis of the kidney, the cavity was drained, no calculus was found; the cavity got much smaller, and ultimately the boy went out wearing the drainage-tube.—Mr. MORRANT BAKER said the case had been recorded in the International Congress Transactions. The case was really one of hydronephrosis; after opening it the wall of the kidney cyst was stitched to the skin. Some months later, on exploring again, the deep boundary of the cyst could not be reached with the finger or a metal catheter. The boy was still going about with the tube in, but quite free from pain; he hoped at some time to find the cyst contracted. If operating by the abdominal incision, he should use a carbolic spray; but in regard to the operation in the loin, he thought the spray was only needful while there was danger of opening the peritoneum, so he should only use it up to a certain point in the operation. He would only remove the kidney when it was found so diseased that its recovery was hopeless; in many cases incision into it and free drainage were a far better procedure.—Dr. MAHOMED had observed the extreme harmlessness and immense benefit of nephrotomy; and he thought a primary nephrectomy could be only very rarely justifiable. Nephrotomy was said to increase the difficulty of a subsequent nephrectomy. But there was recently a case in Guy's Hospital, under Dr. Fagge's care, in which nephrotomy was performed; there was great inflammation around the kidney. The patient died, and he (Dr. Mahomed) was impressed with the fact that the perinephritic mischief had hardly increased the difficulty of a nephrectomy. The kidney could be peeled from its capsule all over, except one very small spot; and he therefore thought it very rash to attempt a nephrectomy without a previous nephrotomy.—Mr. E. A. BARKER thought the operation of nephrotomy was not so successful as Dr. Mahomed asserted. The vast majority of cases so treated had been fatal sooner or later; many dragged on for months and then ended fatally. There must be some cases in which it would be found impossible to remove the kidney; he had had one such case. Now, what was to be done in such a case if the peritoneal cavity had been opened? Such cases would be better if the incision had been made in the loin, and then drainage might bring the organ into a more favourable condition for removal. After the age of thirty it would probably prove to be a most undesirable operation, but he believed Mr. Thornton's two successful cases were both over fifty, and one of them over sixty. In the list of fifty-four cases he had prepared, all the successful cases were patients under thirty. Uræmia had been the cause of death in only a small proportion of cases. As to the use of the spray, he should fully endorse what Mr. Baker had said. Recently he had explored the kidney in a child by a lumbar incision, and did not use the spray; not finding a stone, he closed the wound and dressed it with wool and it healed by first intention.—Dr. MAHOMED stated that he had only referred to the immediate effects of nephrotomy.—Mr. GODLEE thought that when there were a number of large stones in the kidney, and in tubercular kidneys, no good could follow simple nephrotomy; but the organ must be removed. While incising and draining suppurating kidneys relieved temporarily, ultimately

the patients went down hill. In the case referred to by Mr. Lister at the last meeting, the great improvement at first noticed had now ceased. Where the kidney was large he preferred the abdominal incision, and although it was quite easy to reach the kidney from the middle line, Langenbuch's incision was the best. In his case he divided the right colic artery, and possibly the middle colic too, but they gave no trouble. If the colon cannot be drawn in and down it was necessary to divide these vessels. In the lumbar operation, when any unusual difficulty is met with, it was almost impossible to avoid injuring the peritoneum, while the adjacent organs were much exposed to injury, especially the duodenum, in removal of the right kidney. He thought the excretion of urea was a very important point to estimate; in his case the woman was passing from 300 to 370 grains of urea per diem; and the question arose whether that was too little or not.—Mr. MARSH quite agreed with Dr. Southey in the importance of estimating the activity of the kidneys. The kidney was so deep from the loin that he did not think any expansion of the superficial incision would have given him more room.

The Society then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on April 5th, 1882, Dr. Matthews Duncan, President, in the chair.

Exomphalos.—Dr. ROUTH showed (for Dr. Oswald) a Fœtus. There was protrusion of the intestines, and of the brain, through apertures in the parietes, and a membrane joined the abdominal and cranial openings. There was harelip, and a backward curvature of the spine.—The PRESIDENT remarked upon the rarity of such bending backward of the spine in utero.

Ovarian Tumour.—Dr. JOHN WILLIAMS exhibited a Multilocular Ovarian Cyst, the pedicle of which had been twisted twice. The whole inner surface and contents of the tumour showed advanced necrobiotic change, but no putrefaction.

Fibroid removed by Laparotomy.—Mr. MEREDITH showed a Uterine Fibroid, weighing six pounds, with both ovaries attached, removed by abdominal section. It had been cut away at about the level of the internal os, the uterine neck encircled with Kœberlé's serre-nœud, transfixed by two stout pins, and secured in the lower angle of the wound. There was a fibroid change in the right ovary, enlarging it to twice its natural size.—Dr. ROUTH said that in removing the uterus, keeping the stump outside was the important point.—Mr. KNOWSLEY THORNTON said that the uterine cavity nearly always contained septic matter, and therefore when it was opened, the extra-peritoneal treatment was the better. When it was not opened, the intra-peritoneal treatment answered well. In both cases it was advisable to suture the peritoneal covering of the stump.

Microscopic Sections of Diseased Ovary.—Dr. GALABIN showed sections of the Ovary removed by Dr. Braithwaite in the case to be related, and also of a healthy Ovary. The texture of the former was much looser, and contained a larger number of round cells, and those of larger size, than in the latter. Both contained small cysts; Dr. Galabin thought that these were commonly found, and did not in themselves produce symptoms.

Dermoid Tumour.—Mr. KNOWSLEY THORNTON showed a Dermoid Cyst. It contained a solid mass covered with skin with long hair; a projection of bone from which grew several teeth; from another part of its surface a small projection like an abortive limb with long nails. The central part of the mass was solid fat. The pedicle was twisted, the cyst had ruptured, and the peritoneum was full of liquid fat. The tumour was so adherent that its removal was very difficult. The patient recovered without a bad symptom.

Two Cases of Unilateral Vaginal Oöphorectomy.—A paper was read by Dr. BRAITHWAITE (Leeds) on the above subject. Case 1. The patient, aged thirty, was the wife of a workman. She suffered from attacks of dyspnœa, which were brought on by exertion, and which could only be relieved by certain very peculiar positions of the body. There was a mitral murmur; the patient was pale, and in wretched general health, and the muscle of the heart probably extremely feeble. Menstruation was normal. There was a prolapsed ovary, pressure on which did not bring on the dyspnœa, but caused much pain. The diagnosis was that the dyspnœa was cardiac, but in some way excited by a prolapsed and very tender ovary. In no other way could the relief by posture be explained. The prolapsed ovary was removed, with the result that the dyspnœa was nearly, but not completely, cured. Case 2. The wife of a miner, aged twenty-two, a healthy-looking woman. She had always been very hysterical. She suffered from constant pain in the left ovarian region, dating from the birth of her first child three years and a half previously, since which time she had never been free from it, except during the last three months of her succeeding pregnancies, three in number. The left ovary was prolapsed behind the uterus, and exquisitely tender. It was removed, with the result of complete cure. The author believed that the vaginal method of oöphorectomy was the best and simplest for ovaries which were prolapsed or non-adherent.—Dr. ROBERT BARNES regretted that the attitude assumed by London surgeons towards those who practised obstetrics seriously obstructed the progress of this branch of surgery. All great improvements in surgery were largely due to a spirit of enterprise, it might be said of experimental research. He thought that Battey's operation had now emerged from the doubtful domain of experimental surgery, and that we should soon arrive at definite conclusions as to the scope of its application. In a case in which, six months ago, he had removed the ovaries, the fibroid, which formed the immediate cause of suffering, had almost shrunk away. There was a proclivity, from anatomical reasons, to prolapsus and disease of the left ovary rather than the right. He inquired if the Fallopian tube had been removed. This question was of physiological as well as surgical interest.—Dr. HICKINBOTHAM thought that in Dr. Braithwaite's first case there was a large amount of hysteria. He attributed some of the relief obtained to the rest and other therapeutic means incident to hospital treatment. He asked what amount of small cysts indicated disease, and what symptoms did they produce? They were seen in ovaries removed for widely different conditions.—Dr. HEYWOOD SMITH said that the interest of the cases would be enhanced if the condition of the patients was reported in six or twelve months; for Battey found that when one ovary only was removed the pain was apt to recur. He thought the abdominal operation preferable in single women; but the incision should be three or four inches in length. The ovaries he had removed he had found diseased. He had no doubt that the operation in proper cases was destined to be of the greatest service.—Mr. KNOWSLEY THORNTON thought it still an open question whether oöphorectomy was justifiable for ovarian pain; but there was a great field for it for hæmorrhage from fibroids. Accumulated statistics showed that abdominal oöphorectomy was a very safe operation, but that vaginal oöphorectomy was not. He did not think London was behindhand in abdominal surgery.—Dr. GERVIS did not think that the decision as to the advisability of this operation should be influenced by the possibility of a subsequent recurrence of hysteria. In the cases in which he had performed it for local suffering the result had proved its utility.—The PRESIDENT was not opposed to oöphorectomy; but he could not adopt the theory implied in the first case read. To remove one ovary as a treatment of cardiac dyspnœa he regarded as a wild proceeding; nor could he imagine that it would ever come within the range of rational medicine.—Dr. BRAITHWAITE had removed part of the Fallopian tube in the second case, not in the first. He had secured the pedicles with strong catgut, and united the vaginal wound with one suture only at its lower third. He did not think there was any element of hysteria in these cases. The relief to the dyspnœa in Case 1 by the peculiar positions described showed that it was not altogether cardiac. Since the paper had been sent in he had heard that the patient was now suffering from cardiac dropsy. Had the operation been done earlier the result might have been better.

Case of Extra-uterine Fœtation treated by Antiseptic Abdominal Section, with Removal of Fœtus and Hypertrophied Placenta; Recovery.—A paper on this subject was read by Mr. KNOWSLEY THORNTON. The early history of the case was narrated at the March meeting of the Society. The author would divide cases of extra-uterine fœtation into three classes: 1. Those in which accurate diagnosis is possible. 2. Those in which probability, but not certainty, in diagnosis, can be reached. 3. Those in which the nature of the case is not suspected until internal hæmorrhage or

other untoward accident takes place. In Cases 1 and 3 he thought it bad practice not to operate; in Case 2 an exploratory operation should be performed if the symptoms were urgent. But such operations should only be performed (1) under strict Listerian precautions, and (2) by a surgeon of special experience in abdominal section, for they were extremely difficult.—Dr. ROUTH said that wherever there was a growing abdominal tumour, and a complete decidua was voided per vaginam, the diagnosis of extra-uterine fœtation might be made. The successful removal of the placenta in this case was due to its hypertrophied condition. Possibly the placental souffle might have been heard.—Dr. ROGERS said that the souffle heard over fibroids was not so marked as that of the placenta. He thought the presence of milk in the breasts would aid diagnosis.—The PRESIDENT drew attention to the persistent life of the placenta after fœtal death, and its great hypertrophy. He did not believe the souffle was placental; he called it uterine. The discharge of an entire decidua was a valuable diagnostic aid. He remembered a case in which such a decidua was passed; rupture of the sac and internal hæmorrhage took place. After a few days he evacuated the hæmatocele per vaginam and found chorionic villi in the fluid. The patient did well. Nowadays he would have had laparotomy done to get the bleeding stopped.—Mr. THORNTON said the souffle was not heard; had it been it would have to him strengthened the diagnosis of fibroid. The case narrated by the President was a very rare one. He thought that now abdominal section would be attended with less risk than the course followed.

Reviews and Notices of Books.

Text-book of Modern Midwifery. By RODNEY GLISAN, M.D. Pp. 639. Philadelphia: Presley Blakiston. 1881.

THE object of this work is to supply a deficiency in American medical literature by providing a text-book suitable for American "obstetric teachers and busy practitioners." It is some years since such a work appeared, and meanwhile the American student and practitioner have been obliged to content themselves with English books on midwifery, or with translations from continental hand-books on this subject. It is beyond doubt that the details of medical practice vary in different countries, and in no departments more than in those of obstetrics and gynæcology, where minutiæ of treatment must conform largely to the instincts of female delicacy, while those instincts themselves are largely the result of custom or fashion. We need only allude to the different positions adopted in different countries for obstetric operations or gynæcological investigation to prove that the detailed directions for even the simplest procedure in a foreign text-book must be translated into the customs of any other country before the book can be said to be adapted to the use of that country. Our author, therefore, needs no justification for attempting the task he has proposed for himself.

Living in a somewhat remote part of America, he has depended, apparently, on the study of standard works and his own reflection and experience, and we are not at all sure that, under the circumstances, his personal isolation from the larger centres has been on the whole a disadvantage to him. The first thing that strikes us in the book is independence; hardly an idea is adopted, in a work which must naturally consist largely of compilation, without digestion and assimilation, and the result or digested product bears the impress of the author's mind, the main characteristic of which is sound common sense. As might be expected from the circumstances of the writer, the practical parts are the best, though the theoretical parts usually give signs of fair information. One of the best chapters is that on Inversion of the Uterus. Lastly, we cannot but remark the healthy tone which pervades the book, and the conspicuous absence of recommendations of tricks and officious interference.

We pass now to more special criticism, and we will at once say that our object in pointing out defects is the removal of them in a subsequent edition, which we hope may before long appear.

We notice, then, that the author, being eminently a good practical obstetrician, is hardly fair in the amount of space he allots to theory, on which all sound practice must ever be based. For instance, although the development of the fœtus occupies several pages, the constitution of the liquor amnii is hurried over very unsatisfactorily in four lines, while not a word is said as to its origin. Such an omission can hardly be said to be consistent with the object named in the preface, to produce a book "adapted to the wants of obstetric teachers" in America. Again, the subject of the causes of head presentation occupies only five and a half lines; apart from the literary interest of this question, its bearings on other questions are too numerous and too important for it to be thus shelved. The same may be said of "spontaneous evolution," p. 348, where no mention is made of "partus conduplicato corpore" of Kleinwächter; the bearings of this subject on the artificial terminations of transverse presentations ought not to be ignored. The uterine forces are badly described; we think no text-book can be considered up to date which does not at least mention and briefly explain the forces called the "general pressure of the contents" and the "restoration of shape." Our author does not seem to have tasted, certainly he has not digested, these two important articles of medical diet; if he had done so he would hardly recommend rupture of the membranes to be confined to cases of excess of liquor amnii, nor would he talk of the advantage of the bag of waters in dilating the vulva. The chapter on pelvic deformities is one of the least satisfactory in the book. We could have understood our author if he had briefly described the rarer and laid stress on the commoner forms, but six kinds only are mentioned; their description is very meagre, nothing is said of the disturbances they occasion to the mechanism of parturition, of the point where the principal hindrance arises, nor of the kind of treatment which is to be adopted; few of these descriptions indeed include the means of diagnosis; while of the obliquely contracted pelvis the statement is made that it can be rarely diagnosed before the birth of the child, "because there is no apparent external deformity." Our author is decidedly weak on this subject, and we must again remind him of his high claim to teach the teachers. The pendulum movements of the forceps are not well described; not much good can be effected "by oscillating it gently from side to side;" we have not space to correct, but only to criticise this description. In the directions for the use of the forceps in occipito-posterior presentations, no mention is made of removing it when the head reaches the floor of the pelvis.

With regard to errors of commission, our author states rightly that the third position of Naegele is commoner than any except the first, but he contradicts himself in the last paragraph of page 164, though we again find the right oblique diameter mentioned as the most usually occupied on page 36. There is much confusion in most books on this point, and we believe the correct statement to be that before labour begins, the fœtal head, influenced by the coincidence of the greater diameter of the child's body with the greater breadth of the uterus from horn to horn, occupies the right oblique diameter most commonly, in consequence of the dextral uterine rotation; while, after labour has begun, the long diameter of the head, coinciding with the longest diameter of the pelvic brim, usually occupies the transverse position. In another edition we recommend our author to introduce more tables, which catch the eye and remain in the memory better than lines of print. The uterine souffle is said (p. 167) to be heard in ovarian tumours; this is a serious error. On the same page ballottement is said to be a certain sign of pregnancy.

Fibroid subperitoneal tumours are said (p. 171) to be "characterised by great mobility because their attachment to the uterus is by a pedicle"; this may or may not be the case. An ovarian tumour is said (p. 172) to be accompanied by a history of its first appearance in one or other iliac regions. We may or may not have such a history. We think it is too much to say that the cases of missed labour related by Drs. Oldham and McClintock admit of "no doubt" (p. 208). Our author advises a pregnant woman "to go to stool two or three times daily" (p. 233); we think this is bad advice, and permits the retort that if Englishwomen are likely to die during the puerperal state of delirium tremens, as Dr. Glisan seems to think, they run an equal and an earlier chance in America of being carried off during pregnancy by diarrhœa. An anteverted gravid womb is said (p. 246) to be "not so apt to be incarcerated" as a retroverted one; this is surely understating the matter. The definition of "presentation" (p. 297) is not clear or happy; nor is the description of "extension" (p. 303). In bad cases of breech presentation "the breech and other parts may be broken up" (p. 343); we cannot approve of this bare direction. Incision of the cervix during labour is called "hysterotomy" (p. 363) instead of "accouchement forcé." In cases of labour complicated with ovarian tumour, ovariotomy seems to us far less impossible than Dr. Glisan makes out; one such case, at least, has been recorded, and there were no special difficulties. In the reduction of an inverted uterus the direction to push in the axis of the pelvis is useless; we have nothing to do with the bony parts at all; no mention is made of wooden stethoscope-shaped instruments for reduction; the removal of the inverted uterus by gradual strangulation to produce sloughing (p. 449) is bad practice. Lactation is advised (p. 508) "till the second summer." A cellular pelvic phlegmon "cannot be reached by the finger in a vaginal examination" (p. 593); this is a serious error.

The figures are not as good as they might be; Figs. 1 and 2 represent the innominate bones in the old incorrect altitude; Fig. 8 gives an incorrect idea of the axes of the genital canal, closely resembling the misleading "circle of Carus," though Fig. 7 shows the axis of the bony pelvis correctly; Fig. 29 is not good; Fig. 48, from Schultze, represents an error, and should be removed, or the correct view represented by its side, as has been done on page 94; Figs. 123–4 are not a good selection in the way of perforators.

We have no space to point out errors in grammar and orthography, such as are apt to occur in a first edition; indeed, considering the "progress" made by our cousins in at least one of these subjects, we should feel some diffidence in attempting such a task.

The book contains hardly any padding, but we cannot help alluding to a rhapsody on a spermatozoon (p. 83), in which this object is compared to a comet, greatly to the disadvantage of the latter in point of importance. The style of the whole passage equals, if it does not excel, any invocation of the muses with which our Latin verses were wont to commence in the palmiest days of our classical period.

Experimental Researches into the Properties and Motions of Fluids. By W. FORD STANLEY. London: E. and F. N. Spon.

THESE researches show a great amount of labour and accurate observation. Unfortunately the involved construction and peculiar mode of expression render the study of the work difficult and laborious. The ambiguity of the author's style detracts from the value of Chapter IX., which contains matter of interest to medical men. Referring to the principle of the diffusion of flowing forces in fluids, which he enunciates in proposition 106, he says, "In following observations as carefully as I was able I found very generally some evidence of such a principle often or generally apparently differentiated by other causes." It is difficult to draw any accurate conclusion from such a remark, and, unfortunately, passages equally obscure occur almost in every page. The subject is discussed in a series of propositions, an arrangement which enabled the author "to offer speculative ideas freely." The statement of many of the propositions is so involved, and the speculative ideas so vague, that it is impossible to draw accurate deductions from them. The following is Proposition 106:—"That a projectile, or a flowing force forming the head of a current before the continuity of projection can rotate a large volume of the resistant fluid laterally, will divide its direct current by constant bifurcation, until the projectile force becomes in equilibrium with the forward resistance." The experimental verification of this principle elucidates the proposition. If a drop of ink is placed very gently on the surface of some water contained in a vessel it descends slowly, and in descending bifurcates and continues to bifurcate until the specific gravity of the diluted ink and of the water become the same. With some justice the author thinks that, assuming the animal tissues to have been in a fluid or semi-fluid state, the above principle of diffusion may have controlled the formation of the circulatory system. In his own words, "The intrusion of blood or other liquid with small force would of itself open out, through any inequality of resistance, or by constant pressure in one direction, a reticulated system, which would not only be composed of canals for future transmission of the fluids, but the forms of such canals would be those that would be least frictional for a constant flow through them afterwards." On this principle he explains the formation of sarcomatous tumours and the arrangement of their bloodvessels. He suggests that the vascular arrangements in the liver and brain represent the primitive form unchanged by muscular pressure. He applies the same principle to explain the phenomenon of growth in the following words:—"It is possible, upon this principle, that animals increase in bulk by the plenitude of food supplies, by continuity of vascular development, particularly through the influence of inheritance, after several generations of similar growth." This may be a possible supposition, but it is a pity that Mr. Stanley has not made his idea more intelligible, so that his readers could estimate its worth. The accurate observations which are recorded in other portions of the work are interesting to the student of experimental physics. The numerous illustrations are suggestive and well executed.

The Brain and its Functions. By J. LUYS. Vol. XXXVII. of the International Scientific Series. pp. 327. London: J. Kegan Paul, Trench, and Co.

THIS is an interesting and valuable addition to the excellent series of volumes on scientific subjects published by Messrs. Kegan Paul and Co., which have already reached the formidable number of thirty-seven, and which include some treatises of great merit, as those of Rood on Modern Chromatics, Maudsley on Responsibility in Mental Disease, Draper on the Conflict between Religion and Science, Whitney on the Life and Growth of Language, and many others. In almost all of these works scientific subjects are discussed in such a way that whilst they are rendered intelligible to persons of average culture, they are yet well worthy of perusal by the expert, because they give the most recent results of research, and are written by men who are acknowledged masters in their special departments. The present volume is no exception to the rule. M. Luys, the distinguished physician to the Hospice de la Salpétrière, has long been known as an assiduous worker with the microscope, and as one who has attempted, by the due application of reagents, and by making a multitude of successive sections, to trace out the direction and course of the

fibres in the central nervous system. He has published several works which give the results of his indefatigable labours, and it is probable that many of his statements will stand the test of experience. He admits the localisation of function in the brain, and adopts the view long ago advanced by Dr. Carpenter of the functions of the great ganglia of the optic thalami and corpora striata at the base of the brain, without apparently being aware that he has been forestalled in his ideas, or at all events without making any reference to the observations of the English physiologist. The illustrations in support of this point, though schematic, are telling, but the statements in the text give little additional evidence in its favour.

New Inventions.

AUTOMATIC TONGUE DEPRESSORS.

THE want of an instrument which will effectually hold down the tongue during operations on the palate, tonsils, &c., has led me to suggest the tongue depressor figured in the accompanying woodcut. It is made of thin steel sheeting, cut and bent into the required shape, and tempered so as to give it a fairly strong spring. It is then nickel plated, and a small piece of ebony is screwed on to that end of it which fits into the angle behind the symphysis of the jaw.

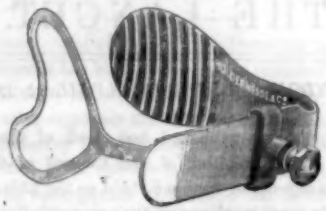
The advantages claimed for the instrument are, that it is very easily applied; that it holds down the tongue *securely*, giving a good view of the parts in the roof and back of the mouth, and not allowing the tongue to be drawn out from beneath it; that it does not in the least interfere with any

manipulation in the mouth, as it fits the chin accurately; that it is automatic, and thus allows the operator the use of both hands, as in removing enlarged tonsils; that it answers equally well whether the patient is under the influence of an anæsthetic or not; that it is simple and cheap. I have had three different sizes made, and I find these sufficient for patients of all ages. The tongue should be drawn forward in the mouth before it is applied, and, of course, where necessary, a gag must be introduced to keep the jaws open, the tongue depressor not interfering with the application of any of the ordinary gags in the least. Professor Annandale has used it several times in operations on cleft palate, and has expressed great satisfaction with it.

The instruments have been made for me by Mr. Young, Forrest-road, Edinburgh. J. M. COTTERILL,
Clinical Surgery Tutor, Edinburgh University.

MR. G. H. DARWIN, M.R.C.P.E., &c., of Manchester, has also introduced an ingenious tongue depressor, which consists of two parts—viz., the depressing blade and the spring. The blade is of German silver plated, is broad, and ribbed on its under surface, the shoulder connecting it with the handle being raised and rounded to avoid contact with the lower incisor teeth. The handle is of length sufficient to make the instrument available for use as an ordinary depressor.

The spring is made of steel, and is of horseshoe shape, so as to conveniently grasp the chin below the symphysis of the jaw. It is attached to the handle of the blade by a screw. The apparatus is made of three sizes, to suit the age of the patient. This depressor acts very efficiently,



and is, we understand, in frequent use by surgeons in the north of England. The makers are Messrs. Holdernesse of Manchester.

CRAMMING AND FORCING SCHOOL CHILDREN.

To the Editor of THE LANCET.

SIR,—I hope you will give your earnest attention to the following. Having from time to time read extracts from THE LANCET bearing upon the wellbeing of different classes of the community, I have been emboldened to address you upon this grave subject, with the hope that my *exposé* may excite some pity for our poor little scholars in the breasts of those who are able to act with effect, as well as to commiserate. Behold in the public street a little child staggering under a heavy load, which is too much for him to bear, and see that inexorable taskmaster near the child forcing the tiny creature by threats and blows to struggle on with his burden. There is an end to this very soon; the little one finds a champion in every onlooker, and the wrong is soon redressed. How so? Simply because the outrage has been perpetrated under the eyes of a justice-loving public. Behold again! I will lift the veil and show you something which ought also to come under the public gaze. Take any of our crack elementary schools, taught under the present so-called practical system of education. The school is divided into "standards," that is groups or classes. Well, it is to the interest (pecuniary and otherwise) of the managers of the said school to make all the scholars in the said standards pass the annual examination equally well; and these managers and teachers strive their utmost to bring about this desired end. To carry out their purpose both nature and common sense are ruthlessly defied and set aside. Every school contains, as every sensible person knows, three classes of children:—1. A few who are clever all round. 2. A greater number who are clever in some subjects but dull in others. 3. A considerable minority whom nature has not endowed with mental power to learn anything thoroughly. In spite of the fact that nature cries Forbear, these poor dullards are threatened, bullied, badgered, kept in long after the legal school hours, in order that the Government grant may be as large as possible. I have questioned many children who have come to me from successful schools. They tell me they have been kept back constantly in school till half-past five and half-past six in the evening. Now, apart from the legal injustice of the thing, I contend that much injury is being done to many children by this system of forcing and anticipating nature. The system is wrong. Our rulers are riding the educational hobby too hard, too recklessly. It is well known that many children are slow in mental development; but many of these become eminent men and women notwithstanding. Sir, it is my lot to witness daily groups of little tremblers who are forced to carry a mental burden too heavy for them. Poor infants! Child life now is not what it ought to be. I am certain we are, by this over-exacting system, marring the future of many who are now children. Ask any adult student who has to pass a stiff examination the effect the strain has upon him. If it be a serious matter for a grown person what must it be for a little child?

I remain, Sir, yours respectfully,
April, 1882. ONE WHO KNOWS.

THE LANCET.

LONDON: SATURDAY, APRIL 22, 1882.

THE account we published last week of the business transacted at the meeting of the Council of the Royal College of Surgeons of England, held on the 13th inst., and the report in another column on the new regulations relating to the Pass Examination for the Membership, illustrate some of the difficulties that beset those who undertake to deal with questions of educational reform. The proposal of Mr. COOPER FORSTER to reduce the lectures on Anatomy to one course, and the motion of Mr. HEATH, that no candidate be admitted to the Final Examination for the Membership until after the expiration of two years from the date of his passing the Primary Examination, though doubtless designed to improve, in some way, the training of the student in Practical Medicine and Surgery, tend, directly or indirectly, to discourage the study of Anatomy and Physiology, and to reduce them to the level of minor subjects, to be disposed of as speedily as possible. Both these remedies exhibit the common fault of most educational measures that have been proposed in recent times: they are directed rather towards diminishing the number of rejections at examinations than towards improving the character of medical education. Mr. FORSTER'S proposal is still under consideration, and is, we would fain hope, scarcely likely to receive much encouragement or support. Mr. HEATH'S proposal, on the other hand, has been finally adopted, though with so many qualifications, exceptions, and restrictions, that the *status quo ante* is not materially affected. Indeed, the recommendations of the Committee and the proposal are mutually destructive. With one hand they take back what they have given with the other. The exceptions that follow the recommendation not only completely stultify the conditions of the proposal, but actually suggest modes of abuse hitherto unsuspected. The proposal begins thus: "That on and after the 1st of October, 1882, no candidate be admitted to the Final or Pass Examination for the diploma of Member until the expiration of two years from the date of his passing the Primary or Anatomical and Physiological Examination"; whereas the report recommending the adoption of this proposal states that "candidates *commencing their professional education* on and after the 1st of October, 1882," &c. In the former case the regulation would come into force next October, and would therefore be retrospective; while in the latter it will not take effect until four years next October. Again, the second clause of the proposal makes it easy for a lazy or a stupid candidate to defeat the intention of the first clause. Though the obvious purpose of the new regulation is to compel students to devote more time to Practical Medicine and Surgery, the second clause allows the candidate to escape who, from laziness or any other cause, has not presented himself for the Primary Examination until he has completed the whole of his curriculum of professional study. The first paragraph of the exceptions of the Committee confirm this unhappy immunity. Not only may an indolent student ride easily through the regulations, but liberal provision is made in the fifth paragraph for everyone who chooses to evade them: "A candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary Examination on the completion of his second year of professional study," the agreeable task of determining whether, in such case, the candidate shall or shall not be required to comply with the regulation being left to the Court of Examiners. Seriously, unless the recommendation of the Committee was deliberately intended to defeat the operation of the regulation, though pretending to give it countenance, it is impossible to reconcile the terms of the proposal and the restrictions of the recommendation.

Though we should welcome any measures that might be likely to diminish the number of rejections at the College and other examinations, we should prefer to see the end accomplished by other means than those now proposed. The principle of the new regulation is minatory, and therefore bad, if not unjust. It is notorious that the number of rejections is higher now than it was fifteen years ago, and yet students not only work harder and longer now than then, but the preparation of candidates in our medical schools has been elaborated into a system of professional "grinding." Surely not all the fault is the student's. The whole system is defective, the methods of education are violated, and the best traditions are ignored. Almost on any day a visitor to the wards and class-rooms of the metropolitan hospitals may observe the melancholy spectacle of a crowd of students collected around their teacher, who is engaged, not in expounding the fundamental principles of surgery or medicine, nor yet in explaining the scientific methods of the investigation of morbid phenomena, but in doling out to empty minds promiscuous scraps of disorderly information, known as "tips for the College." If this be the usual mode of medical education in these days, it is not surprising that the percentage of rejections should steadily rise.

THE correspondence in *The Times* between Mr. STANSFELD, Sir CHARLES TREVELYAN, and Mr. TIMOTHY HOLMES on the one hand, and Mr. GEORGE C. T. BARTLEY, of the National Penny Bank (Limited), on the other, on the subject of the Medical Treatment of the London Working Classes, is of considerable importance. The public, the working classes, and the medical profession are alike interested in the question. This may be briefly stated as follows. Mr. STANSFELD and his friends say that the rich have every chance of the best medical advice and the best nursing; whereas the working classes are rarely able to pay ordinary professional fees, and have to solicit charitable assistance in the crowded out-patient departments of hospitals, where, after long delay, they get perhaps a minute of the time of an overworked medical man, whom they never saw before, and may perhaps never see again. To reduce the disparity between these cases the Provident Medical Association was founded, which is meant to supply the best advice on the lowest terms—small periodical payments,—and to put the patient whose case is urgent into favourable relations with the general and special hospitals. Our readers are familiar with the details of this scheme, one part of which is the creation of a subsidiary Joint Stock

Company on a commercial basis, for providing the buildings required and defraying other necessary preliminary expenses. Mr. STANSFELD and his friends commended this scheme in the first instance, hoping to meet these requirements entirely in a commercial way; but they say that objections are felt to taking shares, even with a limited liability, and hence they now appeal for *donations*.

To this appeal Mr. BARTLEY replies, but not in a way that Mr. STANSFELD and his colleagues will like. He regrets to see Sir CHARLES TREVELYAN, the redoubtable champion of independence, appealing for charitable funds for new institutions to supply wants of the working classes which they are capable of supplying for themselves. Far better leave them, under the lead of the great Friendly Societies, to complete what they have well begun. It is notorious that these societies have long had organised arrangements for medical attendance on their members. Mr. BARTLEY says they are now considering the extension of the medical benefits of these to the wives and children of the members. Besides this, "commercial dispensaries, more or less well managed, are springing up everywhere, and are likely in the course of time to pay a dividend to the shareholders." Mr. BARTLEY deprecates the creation of new charities. Let the existing ones be better supported; but let Provident Dispensaries be what they profess to be, and do not ground on them another claim to the charity of the community.

What a curious position this question is brought to by these different parties! One day the scheme is represented as a promising commercial enterprise—another it is held forth justifying a Mansion-house meeting and the charitable patronage of the Lord Mayor. Our own views on the matter have been repeatedly expressed, and we do not see reason to alter them. We agree so far with Mr. BARTLEY that Mr. STANSFELD and his friends, whose motives we fully appreciate, would do much better work by asking money from the public for the great existing charities of London and by leaving the working classes and the medical profession to adjust between them the terms of medical attendance. There is little credit in organising further the already highly organised Friendly Societies. What more is to be done—and there is much to be done to make them as available for wives and children as for members—can well be effected by those who have already accumulated millions of money and made provision for their own medical attendance. While almost every Hospital in London is being impoverished and starved, it is very doubtful work to distract public attention by creating new schemes, half-charitable and half-commercial. As to the commercial prospects of those who invest in the Dispensary Company, we would venture to discourage sanguine expectations. Most of the Associations which Mr. STANSFELD and his friends seem to imitate pay their medical officers a pittance which is discreditable, and which is rebuked by the more generous terms of many of the Friendly Societies. The best solution of the problem seems to be to perfect the administration of the Hospitals by generosity and by criticism combined, and to leave the Friendly Societies and the doctors to settle matters between them. If Sir CHARLES TREVELYAN and his colleagues wish to do a really creditable thing, it is to go to the classes below those who constitute the Friendly Societies and induce them to join the ranks of those who already make provision for sickness. To cater for the Friendly Societies is to take coals to Newcastle.

THE circumstantial evidence that tuberculosis is a chronic infectious disease has been of late years repeatedly insisted on by COHNHEIM and others, and the hypothesis that it is due to a specific organism has received considerable support from the discovery of parasitic elements as the *materies morbi* of some other chronic infectious diseases, such as leprosy. But the organism of tubercle has hitherto eluded research. Its discovery is at last announced by the distinguished worker to whose investigations much of the progress of bacterial pathology has been due, Dr. KOCH, who gave a description and demonstration of the organisms at a recent meeting of the Physiological Society of Berlin. It is only by means of a special method of preparation and examination that the objects can be detected. The method consists essentially in a process of colouring which has been found to be necessary for the detection of these organisms, and in their examination under very strong illumination; but the details of the method have to be varied according to the tissue examined, whether a secretion, blood-tissue fluid, or a section of an organ or tissue. If, for instance, it is desired to demonstrate the presence of the tubercle-bacilli in the fluid of the tissues, a thin layer of this is spread over a cover glass, it is then dried and warmed for a few moments over a flame, so as to render it insoluble; it is then placed for twenty-four hours in a mixture of 1 cubic centimetre of a concentrated solution of methylene-blue in alcohol, 2 cubic centimetre of a 10 per cent. solution of potash, and 200 cubic centimetres of distilled water. The preparation is by this coloured blue, and on it is then placed a few drops of a solution of vesuvin. This has the effect of discharging the methylene blue from all the tissue elements, but not from the bacilli. The former are of a brown colour, and the blue bacilli are conspicuously defined. The preparation is then treated with absolute alcohol, oil of cloves, and Canada balsam, in the ordinary manner. This peculiarity of being rendered visible by the combined action of methylene blue and vesuvin is possessed only by the tubercle bacilli and by those of leprosy. All other bacteria and micrococci, known to KOCH, lose, under the action of vesuvin, the blue colour which they acquire from methylene blue. This constitutes a striking instance of the pregnant value of the colouring methods in thus, by a quasi-chemical action, bringing out differences between minute organisms which are apparently so similar, and justifies the expectation that, by analogous means, differences may be demonstrated between the organisms of acute diseases which are now separable with so much difficulty and uncertainty, and may be the inauguration of a new era, not only in the etiological knowledge of acute diseases, but also in the organisation of measures for their prevention.

The bacilli of tubercle, when rendered visible by this method of double colouration, are seen as very small rods, in length about one-third the diameter of a red blood-corpuscle, and in breadth about one-sixth of their length. In some of them distinct spores may be seen, as minute, unstained, refracting, vacuole-like structures, distinguishable, however, from the vacuoles in that at their position

there is a slight fusiform enlargement of the bacillus. They are most abundant in recent tubercular neoplasms, and least numerous in the caseating centre of old miliary tubercles. They are also visible within the giant cells, usually isolated, but sometimes forming well-marked sheaf-like bundles. KOCH found the same organisms in the walls of tuberculous cavities, in the sputum of phthisical patients, in degenerated scrofulous glands, in fungous joints, and in the bones of tuberculous cattle. They were never absent in the tubercular new formations produced by inoculation, even in animals of the most different species.

In order to ascertain the all-important question whether these organisms are actually the *materies morbi* of tuberculosis, KOCH has carried on an extensive series of culture-experiments, which have yielded the most striking results. As a culture-liquid he employed sterilised blood-serum from the ox. The sterilisation was effected in the method recommended by TYNDALL, by placing the serum in a test-tube closed with a plug of wadding, and exposing it for an hour on each of several successive days to a temperature of 58° C. After this had been repeated for about six days, the temperature was raised to 65° C., and the previously fluid serum became transformed into a yellowish, translucent, but slightly opalescent mass of the consistence of coagulated gelatine. Its translucency permitted the growth of organisms, either on its surface or in its depth, to be readily recognised by the resulting opacity. In order to increase the area of the free surface of this culture soil, it is recommended to incline the test-tube at the moment of coagulation. A small fragment of excised tissue was introduced into a tube under special precautions, to avoid contamination with ordinary bacteria of putrefaction. Fresh miliary tubercle answers best, taken from an animal affected with inoculation-tubercle, and killed shortly before. If the glass is kept at a temperature of 37° or 38° C., at the end of about ten days the first effect of culture is observable as fine white points and streaks on the surface of the serum. Fresh glasses may be inoculated from this first culture, and so a series of generations may be obtained. Some of these series of cultures were continued for two hundred days. Under the microscope these greyish-white masses on the surface of the serum are found to consist of precisely the same bacilli as can be demonstrated by means of the method of double colouration, in the primary tuberculous tissue. If a small portion is inserted into the anterior chamber of the eye of an animal, is injected into its blood, or inoculated beneath its skin, there results a wide-spread tuberculosis of almost all the organs and tissues, which has a more rapid course than when the inoculation is made with ordinary tuberculous material. The first symptoms are to be observed in guinea-pigs ten days after the inoculation. Even animals which enjoy an almost complete immunity from tuberculosis, such as dogs and rats, are affected rapidly, and with certainty. In some of the animals which died after these inoculations, the amount of tubercle developed in the tissues was enormous, being hardly ever equalled in the human subject. These experiments seem to demonstrate that the organism which is revealed by the method of double colouration is really the pathogenic element of tuberculosis. The researches appear to have been conducted with admirable care. The experiment will no doubt be soon repeated. Indeed, in the brief interval which has elapsed since the demonstration by KOCH, on March 24th, his observations have received independent confirmation by BAUMGARTEN, who has published in the *Centralblatt für Med. Wiss.* an account of his observations. In every new formation of artificially produced tuberculosis in the guinea-pig he found innumerable quantities of the rod-shaped bacteria infiltrating the area in diminishing intensity from the centre to the circumference. As far as the tubercular growth can be traced the bacterial infiltration extends. His description of the organisms agrees closely with that of KOCH, but he observed that the extremities of the rods frequently presented a knob-shaped or wedge-shaped enlargement. They were very rarely united in pairs and never massed in the so-called zoogloea form. He corroborates their characteristic of resistance to the ordinary methods of tinting, and only succeeded in bringing them into distinct view by dilute alkalies. In a postscript BAUMGARTEN adds that he has succeeded in finding the same organisms in human tubercle. The pathological importance of the discovery of the proximate cause of this frightful scourge of the human race cannot be over-estimated, nor is it possible to foretell the practical results to which it may lead.

THIS week we have to bring forward another death from chloroform. A woman named SOLE receives an injury to the leg from a fall, and is taken to Guy's Hospital. Mr. ASHWELL, the house-surgeon, finds a fracture, and in attempting to reduce it is solicited by the patient herself to have something given to her to relieve the pain. Mr. ASHWELL examines into the state of the heart, detects nothing wrong, administers the anæsthetic, observes that for about two minutes all goes well, and then that there is collapse, and in spite of artificial respiration and other restorative means a fatal catastrophe. The post-mortem reveals, what was not expected from the physical examination during life—namely, fatty degeneration of the heart; a heart, in other words, which could not resist the double shock of the pain first, and of the chloroform upon the pain. At the inquest held on the body of the unfortunate woman the husband complained that the chloroform had been administered without his knowledge, and that the post-mortem had been conducted without his permission. We cannot wonder at these complaints; and while we do not blame Mr. ASHWELL, who acted in entire accordance with custom, we must not conceal our sympathy with the complainant. Had the patient been a person of wealth and position, living in her own house, it is all but certain that the husband would have been consulted on both subjects; that before the chloroform was administered the possible danger would have been pointed out; and that, after the death, the necessity for a post-mortem inquiry would have been set before him. Ought not, then, the same care and consideration to have been shown to the hospital patient? We think so, and we trust that in future no administration will take place without the knowledge and permission of the friends of the sufferer. There was never a time when the action of the profession was so jealously watched as at present. The spreading intelligence, the widely searching criticism of all classes and all professions, are making the responsibilities of medical practice much more onerous than they were, and it is as unjust to ourselves as to the

public that we should undertake to bear every issue of life and death, under anæsthesia, on our own shoulders. If we had in our possession a perfectly safe anæsthetic the case would be different, and we might, in the name of humanity, presume on taking liberties with personal freedom which even then were barely reasonable. As it is, we have no right to take such liberties at all, and we trust that from henceforth a custom more honoured in the breach than the observance will be honoured in the breach, and in no other way.

Annotations.

"Ne quid nimis."

THE EPIDEMIC OF WHOOPING-COUGH IN LONDON.

WHOOPING-COUGH assumed an epidemic character in London at the close of last year, and has since prevailed with exceptional fatality. During the first thirteen weeks of this year no fewer than 2224 deaths from this disease were registered within registration London. These deaths were equal to an annual death-rate of 2·29 per 1000, whereas the mean rate from this disease in the twenty-seven provincial towns now dealt with in the Registrar-General's Weekly Return, with a somewhat larger aggregate population than that of the metropolis, did not exceed 0·78 per 1000, and was scarcely more than the third of the London rate. During the four decades, embracing the forty years 1841–80, during which civil registration of deaths has supplied comparatively trustworthy mortality statistics, the rate of mortality from whooping-cough has been singularly stationary. The rate has, of course, varied from year to year; but the mean annual death-rates in the succeeding decades have been almost identical. This fact, taken in conjunction with the marked decline in the fatality of typhus, enteric fever, and scarlet fevers, and a smaller recent decline in the rate from measles, deserves attention at the hands of professors of public hygiene. Whooping-cough was severely epidemic in the first quarters of 1878 and 1880, as well as in the past quarter; the present epidemic is, however, more severe than any in recent years, and at present shows little sign of serious decline. It is evident that the improving sanitary condition and organisation of the metropolis, which have conduced to declining rates of mortality from several of the principal zymotic diseases, have at present been powerless to influence the fatality of whooping-cough. It has hitherto been not unusual for medical officers of health to disclaim all responsibility in connexion with measles and whooping-cough fatality. A larger and broader view, however, of public health matters cannot refuse to recognise that whooping-cough mortality is really, in a general sense, preventable, and this recognition would be an important step in the direction of its reduction. This is a matter that should appeal directly to metropolitan medical officers of health, who since the beginning of this year have witnessed the sacrifice of more than 2500 children by this fatal and somewhat neglected disease.

MEAT PRESERVATION.

THE application of chemical antiseptics to the preservation of meat promises to prove a success, and it seems now only to be a question of decision as to the relative advantage of the rival schemes before the system of meat preservation by antiseptics is largely adopted by importers from America and Australia. By employing chemical agencies instead of the refrigerating process, a considerable saving will be effected, and the price of meat thus preserved ought to be much less—that is to say, if the whole of the profit does not fall into the hands of the retail dealers, and the preserved meat be sold to a confiding public at the same price as freshly killed beef and mutton. To whatever degree of perfection the process of meat preservation may be brought, it will never be able to compete with the flesh of the recently killed animal. The loss of weight in a sheep treated by Jones's patent—injection of boracic acid—in one month amounted to 5 per cent. This is certainly not considerable, but it must be remembered that this loss represents chiefly the volatile elements of the flesh, which, by giving it its characteristic flavour, renders it more palatable, and consequently, with most stomachs, more digestible. No process has yet been devised which can entirely check this loss, though some are more perfect than others. But though preserved meat will hold a lower commercial value than that of freshly killed, yet the introduction of a cheap and wholesome meat-supply will prove a great boon to the industrial classes of this country, and will serve in great measure to check the upward tendency in price of butchers' meat, which now weighs so heavily on all except the wealthier classes of the community. Before, however, the introduction of preserved meat in sufficient quantities to affect our markets becomes an accomplished fact, it is to be hoped that Government will undertake to frame regulations which shall ensure due inspection at the place of slaughter, so that the flesh brought over here shall be that of healthy animals, and also that, when introduced, it shall be sold here as preserved meat, and not palmed off as English beef or mutton.

OÖPHORECTOMY.

AT the last meeting of the Obstetrical Society two extraordinary cases of oöphorectomy were related by Dr. Braithwaite, of Leeds. In each case one ovary was removed. The first patient was pale and in bad general health, and suffered from dyspnœa dependent on mitral disease. Menstruation was normal. The left ovary was prolapsed and tender on pressure, and it was inferred that the dyspnœa was in some way dependent on the condition of the ovary. Accordingly the ovary was removed, with the result that the dyspnœa was considerably relieved. It appears that the patient is now in the Leeds Infirmary, the subject of cardiac dropsy. The second patient was a healthy-looking but hysterical woman, who had suffered from constant pain in the left ovarian region since the birth of her first child, nearly four years previously. She had had three children since. The left ovary was prolapsed and tender; It was removed, with complete relief. It is not uncommon nowadays to refer all manner of aches and pains to some abnormal condition of the uterus and ovaries, and that with little or no evidence; but this is the first time we have heard of dyspnœa, depending on heart disease in a patient pale and out of health, being referred to an ovarian disorder, and we fail to discover in the report of the case the slightest evidence for such a view. The second case was clearly one of hysteria, and the physician should have made due allowance for this when estimating her hysterical description of her suffering. In the course of the discussion on the paper, Dr. Hickinbotham, of Birmingham, pointed out, and with reason, that the relief which followed the operation in the case of heart disease was not due to the removal of the ovary, but to the rest and general treatment the patient had had—an explanation which is in accordance with our daily experience in the treatment of heart disease in women without removal of an ovary, and in men without removal of the testicle. What would be said to a proposal to remove the left testicle in a man for dyspnœa dependent on cardiac disease? Dr. Hickinbotham made another statement of the highest importance in its bearing on the operation of

oöphorectomy as a curative measure in certain diseases. He said he had been lately called to see a patient from whom the ovaries had been removed two years ago for ovarian pain and hysteria, and found that, although the ovarian pain had been relieved, the hysterical attacks were still of the most severe character. It is not often that we find the condition of spayed women recorded after due time has elapsed since the operation; the cases have been generally published before the ultimate result was known. We have on more than one occasion pointed out that cases so published are of no value in estimating the therapeutic effects of the operation. In Dr. Braithwaite's cases a few months only had elapsed since the ovaries were removed.

INCORPORATION OF THE PARKES MUSEUM.

WE are happy to be able to state that the formal meeting of the subscribers to the Parkes Museum, which was held in the Museum on Tuesday afternoon, was of a most satisfactory nature, and the incorporation of the Museum under a licence from the Board of Trade was unanimously agreed upon. The report of the Executive Committee, which was read by the honorary secretary, Dr. Poore, conclusively showed the necessity of the step which was about to be taken. Hitherto the Museum had had no sort of legal constitution; and although a small sum of money had been invested in the name of three trustees, no trust-deed had heretofore been executed. "Under a licence from the Board of Trade," said the report, "the Museum will enjoy all the advantages of being a corporate body. Its funds will be invested in its own name, the trust will be carried on without break and for any length of time, and the Museum will be thoroughly competent to receive legacies and gifts, and generally to transact business under its corporate seal with as much readiness as an individual, subject only to the necessary legal restraints imposed by the proposed Articles of Association. Among other reasons which make the incorporation of the Museum a matter of urgent necessity is the fact that it is about to enter on a new phase of existence. The room at present used as a Museum is full—so full that it is not safe to place any more weight upon the floor of it; and, further, intimation has been received from the Council of University College that the room will be required for other purposes at the end of the present session. It is evident, then, that a new home must be sought for the Museum, and before making an appeal to the public for the necessary funds, it is thought essential that the Museum should be placed on a secure legal basis." The report concluded as follows:—"Since the opening of the museum it has been visited by over 5000 persons interested in sanitary progress, exclusive of those who attended the lectures and demonstrations, which were given gratuitously during the winters of 1880 and 1881 by members of the Executive Committee, and those who attended the inaugural meeting in 1879, and the first annual meeting at the Mansion House in 1880, both of which were of great service in drawing public attention to the necessity of a knowledge of hygienic principles. During the past winter, owing to the crowded state of the museum, the lectures and demonstrations have had to be discontinued, and the Committee trusts that under the *régime* which, it is hoped, is about to be instituted, the museum will receive such an amount of public support as will enable it to continue its career of practical utility under conditions more suitable for conveying instruction than it at present enjoys." Dr. Russell Reynolds proposed, and Dr. Steele seconded, the adoption of the report, which was agreed to unanimously. The draft Memorandum and Articles of Association, under which it was proposed the museum should be incorporated, were unanimously approved on the motion of Professor Corfield, seconded by Mr. Rogers Field. On the proposal of Dr. Sieveking, seconded by Dr. Gowers, it was agreed that the Executive Committee should be dissolved as soon as the incorporation of the museum was completed, and a vote of thanks to the chairman (Mr. Berkeley Hill) concluded the meeting. The Council of University College has consented to allow the erection of a museum, to form part of the now unfinished north wing of the College. The museum thus situated would have a separate entrance from Gower-street, and would be to all intents and purposes an independent institution. As soon as the incorporation is completed active steps will be taken to lay the scheme before the public, and no effort will be spared to raise the necessary funds. Of the service which the new museum would be to the public there can be no doubt, and we cordially wish success to the work which has been so successfully carried thus far.

THE CURSE OF CHLORAL.

A SAD glimpse into the life of the late Dante Rossetti, over whose newly closed grave the lovers of two arts are mourning, is afforded by a brief memoir which his friend Theodore Watts has contributed to the *Athenæum*. The curse of chloral upon any life is disastrous enough, but its features are brought into terrible salience when it falls upon the gifts of genius; none the less so because the cerebral conditions of high intellectual natures render them easy victims. About 1868, Mr. Watts informs us, "the curse of the artistic and poetic temperament—insomnia—attacked him, and one of the most distressing effects of insomnia is a nervous shrinking from personal contact with any save a few intimate friends. This peculiar kind of nervousness may be aggravated by the use of sleeping draughts, and in his case was thus aggravated." "No man ever lived who was so generous as he in sympathising with other men's work, save only when the cruel fumes of chloral turned him against everything. Who is there among our readers whose personal observation does not enable him to fill up, only too completely, the details of the picture thus sketched in outline? The dependence on its influence which chloral, habitually taken, inevitably causes; the nervous prostration which it gradually induces; the irritability which follows chloral sleep, and follows equally the sleepless nights of abstinence; the slowly sapping of nervous energy, until the system becomes a ready prey to any and to every morbific tendency—all these are only too familiar, and over and over again, during the last ten years, we have pointed out their moral. But a lesson drawn from such a life as Rossetti's, in which the curse blasts the full maturity of genius, goes home, as the ruin of commonplace lives does not, and we hope Mr. John Marshall, to whose unwearied attention Rossetti more than once owed his life, may see fit to publish some of the medical details of a case which may prove at least an effective warning to the many who are exposed to the same danger.

GROCERS' LICENCES AND SECRET DRINKING.

ON Wednesday next, April 26th, Mr. Lewis Fry, member for Bristol, will move in the House of Commons the second reading of the "Off Licensing Amendment Bill." In this Bill it is proposed to give the licensing authorities the power to refuse the licence to grocers and beershop-keepers, the same as to the licensed victualler. We have so often opposed the grocers' licence in these columns that it is scarcely necessary to repeat that we wish Mr. Fry's motion every success—a wish which will, we feel sure, be echoed by the profession at large. To no other members of the body politic is it so well known as to the members of our profession how the secret evils to health and morality springing from the licence increase the mischievous and dangerous results from alcoholic indulgence, especially amongst the female section of the community.

AN EXTRAORDINARY CASE OF STABBING.

A VERY remarkable case was admitted into University College Hospital, on Tuesday last, under Mr. Beck's care. The patient had his leg amputated by Mr. Marshall five or six years ago, and on Monday he called at the hospital complaining that the stump was ulcerated, and that the smell from it was so offensive that no one could come near him. This was a pure delusion; but in other respects he was perfectly rational. On Tuesday morning he attempted suicide, first by inflicting a small superficial wound on his throat, and then by placing the point of the blade of a sword-stick without a handle against his chest, just below and to the outer side of the left nipple, and driving it in by running against the wall of his room. The violence and determination with which he did this are shown by the fact that there were seven deep dents in the wall, made by the handle of the sword. The total length of the blade was about eighteen inches, and he succeeded in driving it in to the depth of eleven and a half in a direction backwards and to the right and slightly downwards. The point could be felt beneath the skin behind just below the tenth or eleventh rib, and about two and a half inches to the right of the middle line. Several loose fragments of bone could be felt around it. A rib was also fractured at the point of entry. The blade was so firmly fixed in its position that no amount of force seemed able to move it. The attempts at removal caused him so much pain that ether was administered. All efforts to extract it by simply pulling by means of a small vice which had been applied to it by the medical man who first saw him for a time proved fruitless, but on rotating it slightly it became suddenly free and was removed without difficulty. The removal was not followed by any escape of air or blood. It appears probable from the direction of the instrument, and from the firmness with which it was impacted, that it had transfixed the body of a vertebra. It seems to have just missed the pericardium, and wounded the left lung, and possibly also the right. When admitted to the hospital there was no shock or hæmoptysis. The pulse was regular and 96 after the removal of the sword. The wound was wiped out, as far as possible, with a piece of muslin soaked in a one-in-twenty solution of carbolic acid, and held in a pair of sinus forceps, and an antiseptic dressing was applied. On Wednesday night the temperature had risen to 101° F., and the pulse to 120, and he was sweating profusely; but both sides of the chest were fairly resonant, and there was no increase of the cardiac dulness, as far as can be ascertained, through the antiseptic dressing. The breathing was purely abdominal, about forty to forty-five to the minute; but this was apparently due to the fracture of the rib. The patient's prospects of recovery seem very doubtful.

PHYSICAL DIAGNOSIS OF PERITONITIS.

DR. AUSTIN FLINT lately read before the Medical Society of the State of New York a paper on the Physical Diagnosis, by Means of Percussion and Exploration by Puncture, of Peritonitis, with and without Perforation of the Alimentary Canal, and the Employment of Aspiration in Cases of Perforating Peritonitis. The paper in full will be found in the *Medical News* of Feb. 11th. Dr. Flint argues that it is of great moment, both as regards prognosis and treatment, to determine whether the peritonitis depends on perforation of the stomach or intestine. His main point is this: if perforation be the cause of the peritonitis, there is more or less gas in the peritoneal cavity; a stratum of gas will then separate the liver and the chest wall, giving rise to tympanitic resonance on percussion, and hence, if there be persistence of the normal hepatic flatness, perforation as the cause of the peritonitis may be excluded. Dr. Flint's attention has very lately been directed to this point, and its clinical value has yet to be demonstrated. But he adduces clinical cases and post-mortem experiments in illustration of his suggestion. While he assumes that hepatic dulness is proof against perforation, he guards his hearers against assuming that tympanitic resonance over the hepatic region is always a proof of perforation. He shows that it may depend on a distended colon pushed up. He sees no objection, in order to get positive proof of gas in the peritoneum, to an exploratory puncture with a small trocar and cannula in cases of peritonitis, where tympanitic resonance extends over the region of the liver. The puncture, to avoid wounding the intestine, should be made over the hepatic region. Dr. Flint farther discusses the question whether, with a view to the removal of the gas, aspiration might not be practised. These suggestions are of a grave character, and not to be lightly applied; but coming from a physician of Dr. Flint's character, they are worthy of serious consideration.

"CRAMMING AND FORCING SCHOOL CHILDREN."

UNDER this expressive heading a correspondent rehearses the familiar story of high-pressure education, for the sake of an immediate display of knowledge however acquired. It is perfectly well known to everybody who has taken the trouble to study the system of teaching and training for results—the inevitable consequence of the competition and examination mania—that education is a misnomer for the method of tuition too generally employed. The leading out of faculties forms no part of the programme. Instead of the acquisition of knowledge being regarded, as it should be, principally as means to an end—namely, the development of a healthy and vigorous brain, with high physico-mental powers—to know, or seem to know, a great deal is deemed the supreme triumph of education. As we have repeatedly contended, this is a commercial, instead of a physiological, view of the subject. It is, moreover, an irrational and most mischievous one; because it leads to neglect of the period and stage of growth for body and "mind," and is an excuse for the doing of irreparable mischief. If the brain be not properly developed by judicious training in youth it cannot be developed afterwards in life. It must remain not merely a stunted organ, but one which labours under the radical—we might almost say constructional—defect of being disproportionately developed—that is to say, excessive in some parts while it is deficient in others. For example, the lower animal passions act on the brain, and stimulate certain of the cerebral centres and elements, which require for their restraint and healthy coördination the development of other centres or elements. It very rarely indeed happens that the scant measure of cerebral education which is possible in adult life compensates for the defects left in the earlier period, and as a result the individual is thrown on the world with what is called a "character"—or physico-mental constitution—which not only proves inadequate to the needs of life, but makes him an easy prey to every form of external evil influence. It is depressing to note the moral debility of the *imperfectly* cultured mind; the outcome is even worse than that of the wholly uneducated and simply brutal organism. This is one aspect of the question of unphysiological education, and not the least important. Another, which commonly attracts more attention, and upon which our correspondent descants, comprises the destructive effects of over-work on the imperfectly developed brain. The child is compelled by the system adopted to expend his strength and exhaust certain of his cerebral centres by the heavy strain thrown on some faculties, while—or because—others are neglected. This is the consequence of cramming and forcing. The brain is

worked instead of being *cultivated* by training. If it, or any part of it, happens to be developed in the process of acquiring the knowledge put into it, that must be regarded as an accident of the method pursued. It is certainly not the object. We are almost weary of penning these platitudes about education and the self-evident folly of educators. It would be cheering to see the smallest particle of evidence that our often-repeated recommendations have the slightest effect.

FRENCH ARMY MEDICAL SERVICE.

IN the *Revue Militaire de Médecine et de Chirurgie* for March, a transcript is given of the general regulations of the medical department of the French army under the new law for the administration of the army. The organisation of the special branch of the medical service at the War Office has not yet been settled, but will be the subject of a decree. The directors of the health service in the army corps, and the chiefs of the service in the hospitals and field hospitals, are to be chosen from the members of the corps of military medical officers. The relations of these chiefs to each other and to the commanding officers and the other branches of the service are to be in accordance with the rules which regulate the army generally. In all matters affecting the health service they will have authority over the *personnel*, military and civil, attached permanently or temporarily to their service, and will be entitled to give orders to the apothecaries, hospital commissaries, and to the troops of the military train and others detached temporarily for duty with the medical department. The directors and chiefs of the service will be authorised to order, on their own responsibility, whatever they may consider indispensable, though not included in the scale laid down in the regulations, but they must give the order in writing, and must report it at once to the officer in command. Upon them also will devolve the superintendence of the equipment and stores of the hospitals and field hospitals, and they will be held responsible for these being kept up to the establishment authorised by the War Minister, and in good condition and available for service. The general principles upon which the new organisation of the department is framed appear to correspond very closely with those now in operation in our service. They give greatly increased liberty of action to the medical officer, and power to carry out whatever he may deem essential for the efficient discharge of his duty, and at the same time make him responsible that such liberty shall be exercised discreetly and with sound judgment. We trust that this change may prove beneficial alike to the soldiers and the medical officers, and that the latter may prove themselves in every respect deserving of the increased confidence placed in them, and the comparative independence which has been now conferred on them.

ANOTHER WARNING AGAINST THE USE OF NARCOTICS.

THE death of Mr. Thomas Atkinson Elias, L.K.Q.C.P.I., of Southport, should serve as another warning to medical men, as well as others, against the frequent or careless use of narcotics. It transpired at the inquest that Mr. Elias was occasionally troubled with sleeplessness, and for this he frequently took morphia, chloral, nepenthe, or bromide of potassium. Sometimes, the dispenser said, he would come in from his round, in the afternoon, and take the bottle and drink forty drops. It is lamentable to see medical men drift into such uses of drugs, which engender the very evils for which they are taken, and are so apt to issue in results quite uncontemplated. It was so in Mr. Elias's case—at least, so the jury concluded. The night before his death he had spent in usual good spirits at the house of his brother, Dr. Elias, with some friends. On the way to his own home he called at the house of a patient, about one o'clock; he walked with slight unsteadiness and appeared tired and sleepy on his arrival. He soon went to sleep. In the course of a few hours sleep became stertorous, and he died about six. In the surgery, at his brother's house, the morphia bottle was found to be out of its place and to have had about half an ounce of its contents abstracted since the previous night. There was no chemical examination of the contents of the stomach, the jury thinking such evidence superfluous. In regard to this we think it to be regretted that chemical evidence was not taken; the more so, as, according to Dr. Jones, who saw the patient about two hours before death, the pupils were not contracted! But without this evidence the moral of Mr. Elias's death is only too plain to warn medical men, as well as others, against resorting to the use of narcotics for the relief of excitability or sleeplessness. Such evils are to be cured, and meantime borne with patience, not met by dangerous medicines in random doses.

A STRANGE STORY.

ACCORDING to the *Allg. Med. Central Zeitung*, an extraordinary plot to murder a number of the medical men of Berlin has recently been discovered. The object of the proposed crimes appears to have been simply plunder, and the selection of medical men as the victims was owing to the diabolical consideration that the exercise of their profession rendered them easy subjects. Two individuals came one day to a police-station and stated that they had arranged with a third person, named Wilke, to hire furnished rooms in different parts of the town, and, under the pretence of illness, to get a medical man to visit them, and then to murder him by means of a strangling instrument, which would first render him powerless. They then proposed to throw the body into the water. The instrument was described as consisting of an iron collar, a sort of large steel pincer, of which one portion was fixed in a hollow iron tube, and the other was movable, and connected with it was a chain which passed through the tube and terminated in a ring. By pulling the ring the two arms of the collar could be brought together with great force. The plan proposed was described as follows:—Wilke was to play the part of the patient, and lie in bed with the garotting instrument by his side under the bedclothes. When the doctor proceeded to his examination he was to be seized by the neck with the instrument, while one of the accomplices was to pinion his arms from behind, and the third simultaneously apply shackles to his legs. A room had been selected which offered facilities for the disposal of the body in the water. The first victim had been selected in the person of a Dr. Lehrs, and the attempt was to be made on the evening of the day on which the announcement was made to the police by the two accomplices, who had become alarmed at the horrible nature of the crime. The police went to the house indicated, the occupier of which stated that a gentleman had taken a room in it, had paid a fortnight's rent in advance, and left in it a large box. This box, being opened, was found to contain fetters and an instrument answering in all respects to the description which had been given to the police. It was agreed that a pretended attempt should be made by the accomplices to carry out the plan, a police officer taking the *rôle* of Dr. Lehrs. In the evening at seven o'clock Wilke met his accomplices at the house according to arrangement, went to bed, and sent one of his companions for Dr. Lehrs. Presently the man returned, accompanied by a spectacled gentleman, who announced himself as Dr. Lehrs. The drama went on exactly as had been foretold. As the pretended doctor stooped down to examine Wilke,

his neck was seized with the instrument, while the assistants secured his arms and legs. The victim protested that he had no money with him, on which a document was put before him to be signed. On refusal the collar on his neck was tightened. The half-strangled man then knocked on the floor with his foot, on which the police in an adjacent room rushed in and secured the would-be murderer. The man was found to be a tailor by occupation, and he stated that he had been two years contriving the instrument, having taken for a model an old-fashioned instrument of torture preserved in one of the museums of the city. It was stated that Dr. Langerhans, deputy in the Landstag, who lived near, was to be the second victim, and that subsequently rooms were to be taken in other quarters of the town for the benefit of other medical men.

THE DIAGNOSIS AND TREATMENT OF TUMOURS OF THE BLADDER.

THE case of successful removal of a tumour of the bladder reported by Sir Henry Thompson at the last meeting of the Royal Medical and Chirurgical Society will no doubt awaken fresh interest in this important subject. We will not here repeat the many points dwelt on in the subsequent discussion, but would refer to two only—the difficulty of diagnosis, and the safety of Sir Henry's operation. All the speakers touched upon the former, none questioned the latter. From the discussion and records of cases it seems evident that while there are few removable bladder tumours, and many unremovable ones, which can be reasonably diagnosed to be such during life, there is a large number of cases in which with only his present means the surgeon must remain in doubt. All that is wanted in these cases is to be able to *feel* the tumours. In the female, where the finger can be easily passed through the urethra, and the whole interior of the bladder explored, the diagnosis of these tumours is, we presume, always made. Sir Henry Thompson will have done great service by his paper if it helps to draw attention to the ease and safety with which the male bladder can be thoroughly explored through a wound from the perineum into the membranous portion of the urethra. Such a wound does not interfere injuriously with the neck of the bladder, is easily made with precision, and heals readily. Every part of the viscus can be explored through it, without violence or risk, and medium-sized tumours, at any rate, can be removed through it. Whether the median incision into the urethra be the best for removal of tumours in all cases, we are not now anxious to show; its superiority over others for the purposes of diagnosis we venture to think none would question, and we would recommend that in any case where a tumour of the bladder is reasonably suspected, and where other means of examination have not demonstrated that it is unsuitable for removal, the bladder should be explored by this safe and efficient means.

SUICIDE AT ILKLEY.

AN improbable story appears in one of the Yorkshire papers to the effect that an Oldham lady had died at the hydropathic establishment at Ilkley under suspicious circumstances, and that instead of these being reported to the coroner for investigation the body of the lady was, with the connivance of Mr. Leeson and Dr. Scott of Ilkley, conveyed to Oldham, Dr. Scott having given a certificate suppressing the fact of an attempt at suicide by cutting the throat with a penknife, and attributing death to five days' exhaustion and inflammation of the larynx. The matter is the subject of correspondence between the coroner and the Home Office, and we can do no more at present than express our belief that the story will prove an incorrect account of the action of the medical men concerned.

BREAD-MAKING.

AFTER perusing Mr. Lakeman's report on the condition of London bakehouses, our feeling is one of thankfulness that the duty of reporting on these places has been added to the responsibilities of the Inspector of Factories. It is inconceivable how such conditions as described in his report can be allowed to continue after such an exposure. The question is not one of nastiness merely, but it affects the public health, and adequate measures must be taken to enforce not only ordinary cleanliness, but also to ensure that the sanitary surroundings are satisfactory. Not only is strict inspection of bakers' premises required with a view to removing obvious and positive dirt, but a certain standard with regard to sanitary requirements ought to be insisted on before premises can be used for the purposes of public bread-making. Mr. Lakeman records that he has seen an open drain, two feet square, into which liquid from adjoining premises flowed, and over which tins of buns were laid to cool. Curiously, in the same column of the newspaper which contains an abstract of Mr. Lakeman's report, there is a paragraph relating to the wholesale poisoning by hot cross-buns at a town in Scotland, and it was also stated that the analyst had failed to detect any poisonous substance. We wonder, in this instance, whether the buns had been set to cool over an open drain, and had thus acquired more than a *soupçon* of sewer-gas.

FIRES IN THEATRES.

AT the suggestion of Captain Shaw, a report has been called for by the Home Secretary, and the Metropolitan Board of Works has been thus coerced by the personal influence of its servant to do its duty. Captain Shaw is nominally the servant of the Board of Works. It would be incomparably better for the public every way, both as ratepayers and owners of property, and as the possessors of lives jeopardised by fire and panic, if the chief of the Fire Brigade were directly responsible to the Secretary of State; if, in short, he occupied the same position with regard to the organisation and maintenance of the force under his command as Sir Edmund Henderson holds in relation to the Metropolitan Police. The Metropolitan Board of Works simply taxes the fire rate at an exorbitant percentage for the management of the fund, and mismanages the trust, while it allows the Act of Parliament empowering it to protect the interests of the public to lie idle. We should much like to see Captain Shaw's report. It ought not to be burked because it happens to point plainly to certain instant and formidable perils to which the public is nightly exposed.

DISINFECTION BY BROMINE.

THE powerful germicidal properties of bromine render it a very efficient disinfectant, but it has not hitherto been employed for this purpose on account of the expense and the practical difficulties in its employment. Dr. Wernick has recently given an account of an apparatus in which he believes these difficulties are surmounted, and bromine is brought within the list of practicable and useful disinfectants. The method consists in impregnating with bromine a patent siliceous sponge invented by Dr. Frank, which, contained in a closed vessel, is saturated with seven times its volume of bromine, to the vapours of which any substance to be disinfected can be exposed. In order to test the efficiency of this method of disinfection, a chamber was employed containing 57 cubic metres, in which the air could be freely changed by means of three openings. Dry silk fibres impregnated with the spores of anthrax were placed in the chamber in four different positions, and also a glass vessel containing 15 cubic centimetres of the siliceous sponge im-

pregnated with 75 grammes of bromine vapour. The chamber was left closed for six hours. Other experiments were made in which the spores were exposed for a shorter time. The effect of the bromine vapour on the spores was then tested in an elaborate series of experiments on mice. The conclusions drawn are that the air contained in a given space may be completely disinfected so as to render altogether innocuous any spores contained therein, if each cubic metre of air is impregnated with the vapour of four grammes of bromine. The cost of the necessary materials is estimated at twopence (German).

A MIDWIFE CHARGED WITH PROCURING ABORTION.

A MIDWIFE named Roche, of Joinville-le-pont in France, has been charged with having procured abortion in a patient named Mousseaux. The medical evidence from the post-mortem examination is interesting and unique. Madame Mousseaux died of acute peritonitis. She appears to have been five months pregnant. The pregnancy was peculiar, the ovum occupying the right corner of the uterus and encroaching on the whole thickness of the uterine wall at the level of the right Fallopian tube. There were no marks of violence to be found on the body and cervix of the uterus. The fœtus appeared to have been expelled about or soon after the time of its death. There were many marks of injury on its body, some of which seemed to have been inflicted during life, while the nature of others in this respect was uncertain. Those believed to have been inflicted during life were punctiform ecchymoses of the right buttock and left thigh and a tear of the liver. It does not appear how the injuries to the liver were brought about, but those on the buttocks and thighs corresponded with an instrument like a sound which was found in the possession of Madame Roche. In and on this instrument, however, no trace of blood or of human tissue could be discovered. Madame Mousseaux was well in the afternoon of Nov. 13th; that night she miscarried, and on the following day she died. Much stress was laid on the early appearance of the peritonitis after the miscarriage, and on the rapidity with which it proved fatal, as evidence of criminal interference. Although the point is of some value, yet it is well known that peritonitis may occur immediately after labour, or indeed even during pregnancy, without any outside interference, and under such circumstances it would not be justifiable to place any reliance upon the early appearance of the disease as evidence of criminal interference.

HOURS OF LABOUR IN SHOPS.

THERE would seem to be a growing recognition of the need of controlling the length and the manner of labour among shop assistants. The appeal certainly lies to the Legislature, and we are glad that this is beginning to be perceived. The employers of labour will not move in the right direction except under the pressure of law. It is to be regretted that a recourse to public meetings and the usual forms and methods of agitation should have been deemed necessary. There are many drawbacks to this procedure, but it would appear to be the only one by which Parliament can be quickly and effectually approached and influenced. The time cannot be far distant when the rule of moderate hours of service will be extended to the servants of retail shopkeepers. We wish the assistants success in their enterprise, although, it must be confessed, we deplore the felt need of mixed gatherings in Trafalgar-square. It is clearly right and necessary that *all* who work continuously, whether with mind or body, should be ensured regularly recurring and sufficiently long periods of rest. Body and mind require the relaxation such relief affords. It is a false economy, ruinous to health, and productive of many evils fatal to happiness, to exhaust the vitality of the organism by working it too severely or keeping it too long at a time on the strain.

A NEW ANTISEPTIC.

PROFESSOR BARFF, whose name is well known in connexion with his process of preserving iron from atmospheric influences, read a paper at the Society of Arts on the 29th ult., in which he introduced a new product to the attention of his audience. The product obtained by the action of boracic acid upon glycerin is a body analogous in its composition to fats, consisting of glyceril united with boracic acid instead of a fatty acid. The following is the formula showing the formation and composition of boroglyceride, the name given to the new compound:—

$$\text{Glycerin } (C_3H_8O_3) + \text{Boric hydrate } (H_3BO_3) = \text{Boroglyceride } (C_3H_5BO_3) + 3H_2O.$$

At ordinary temperatures boroglyceride is an odourless, transparent, jelly-like body, almost without taste, although, when placed upon the tongue in its pure state, it leaves behind a "smack" not unlike that caused by alum. According to Professor Barff, boroglyceride is a most powerful antiseptic, and being in its diluted form practically tasteless, it is likely to be of great service in the preservation of food. For preserving food solutions were used varying in strength from 1 in 20 to 1 in 60, and meat, fish, and many articles of animal food, after being steeped in such a solution for twenty-four hours, had been found capable of being transported to or from a tropical country without undergoing any putrefactive change. Cream and milk had been found to keep good almost indefinitely if mixed with a proportion of this antiseptic solution, and both the milk and cream so treated had been partaken of with relish, without any suspicion that they were not perfectly fresh from the cow. For the preservation of pathological and anatomical specimens boroglyceride is likely to be of value; but if it really prove a tasteless and effective antiseptic, its chief field for employment will doubtless be in the food market. With regard to the use of boroglyceride as a food-preservative, the important question has been asked, and is likely to be asked again, whether, when taken into the body, it is innocuous. Boron is not a normal constituent of the body, and the question is a perfectly natural one to ask. Experience alone can furnish the answer, and up to the present time experience has answered in the affirmative. Professor Barff stated that not only had he taken large quantities himself, but a near relative had taken an ounce a week for nearly eighteen months, and the boys and teachers of Beaumont College had also taken large quantities of milk preserved with it, and as yet no evil effects of any kind had been observed. We have been favoured with a letter from Mr. Arthur Robottom, who has considerable knowledge of borax both scientifically and commercially, and he also repudiates the notion that any harm is likely to happen from its admixture, as a preservative, with articles of diet.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE twenty-first Annual Festival of the Royal Medical Benevolent College at Epsom was held on Wednesday last, at the Langham Hotel. Sir Erasmus Wilson had promised to take the chair, but through illness was unable to do so. Professor J. Marshall, F.R.S., kindly consented to take his place at the dinner, and pleaded eloquently in behalf of this excellent institution. During its existence 1380 boys have passed through the school, many of whom, as our readers are aware, have figured well in university and other examinations. A respectable list of subscriptions was announced.

OPERATION FOR INTESTINAL OBSTRUCTION.

ON Saturday last Professor Marshall performed an interesting operation at University College Hospital. A woman under his care, forty-nine years of age, had suffered from chronic intestinal obstruction, and all ordinary efforts to find the seat of the obstruction having failed, Mr. Marshall opened the abdomen, and there found an annular stricture of the lower end of the descending colon. As it was adherent behind, the abdominal wound was closed, and left lumbar colotomy was performed, the diseased portion of gut, about an inch and a quarter long, was excised, the end of the lower portion of gut enclosed in a ligature and the upper piece stitched to the wound. The abdominal incision and exploration were conducted with antiseptic precautions; the colotomy, for obvious reasons, was not. The abdominal wound did well, but septic peritonitis spread from the lumbar wound, and proved fatal. At the autopsy numerous small secondary deposits of columnar epithelioma were found in the liver, which was unusually small. We trust a full account of this very interesting case will shortly be published.

SIR ERASMUS WILSON.

WE are glad to be able to announce that the health of Sir Erasmus Wilson is improving. Sir Erasmus' illness began with an attack of acute dyspepsia attended with a considerable amount of febrile disturbance. From this he has in a great measure recovered, though he is still suffering from a catarrhal condition of the bronchial mucous membrane. Though the above combination and succession of ailments are, we need scarcely say, of grave import, we may hope that with the continuance of genial weather convalescence will speedily be established.

HOSPITAL TREATMENT OF THE POOR.

THE treatment of the poor at hospitals is a point to which the attention of juries and the public has been of late much divided. Sometimes there is a disposition to be somewhat hard on hospitals. We should like to see more moderation in the estimate of juries as to what is possible with the indiscriminate application of hundreds daily at the large hospitals, and a little more acuteness in hospital officials in estimating the gravity of cases, and in certain instances foregoing rules which for general purposes may be necessary. These remarks are called forth by the case of a man who, though suffering from blood-poisoning from dog bite, was sent home from St. Bartholomew's Hospital without medicine because he had not a penny to pay for a bottle. He got much worse in the night and had to be admitted as an in-patient the next day, and ere long died. Surely the surgeon could indicate by some sign when cases are grave and require consideration. The jury expressed themselves strongly, and Mr. Morris, the steward, promised that the poor should have bottles gratis in future.

THE SEVENOAKS BY-LAWS.

THE Sevenoaks Local Board have issued a sheet of drawings illustrative of the by-laws "as to the drainage of new buildings" which they have adopted, following the "model" by-laws of the Local Government Board. The drawing is signed by "Rogers Field and Thos. Hennell," names which guarantee the accuracy of the several portions and their entire practicability. The utility of the drawing to local builders is apparent at a glance, and its simplification of a seemingly complicated question is equally obvious. Much discussion has taken place among architects, builders, and others respecting the practicability of the "model" by-laws as to house drainage. This drawing seems to set the question at rest, and we would strongly advise, wherever the "model" by-laws as to new buildings are adopted, that the course which has been taken by the Sevenoaks Local Board be followed—namely, that each copy of the by-laws be accompanied by a sheet of illustrations.

THE GENERAL LYING-IN HOSPITAL.

WE find from the report of this hospital that during the last year 172 patients were delivered in the institution and 610 in their own homes. There were no deaths among the mothers in either the in-door or out-door department. Among the in-patients there were six cases of instrumental delivery, four of flooding, and one case of mania which recovered in the hospital. Antiseptic precautions were adopted in all cases, and the results obtained appear to show that with due care a lying-in hospital can be managed without increasing the danger ordinarily attendant on parturition in home practice. A difficulty met with in all lying-in hospitals has been felt here—namely, the want of a convalescent home to which to send patients until their strength is thoroughly restored. To meet this want the committee have established a Samaritan fund with a view to pay the expenses of patients to the country, and of supplying them with food and nourishment immediately after they have left the hospital.

THE SALE OF DRINK ON PLEASURE STEAMERS.

THERE are few more dismal sights than to see a pleasure steamer converted into a bad drinking saloon. This is an evil on the Thames which has shocked many people who are by no means puritanical in their views. According to the representations of a deputation to Lord Rosebery in Scotland, it is an equal evil on the Clyde and the Forth. His Lordship has promised to forward a memorial on the subject. On the Thames it has been noticed that mere youths between two stations, close to each other, will toss off glasses of spirit as if they were drinking milk. With the superfluity of facilities for drinking on the land, it cannot be necessary to convert every steamer into a public-house.

ELECTIONS IN THE COLLEGE OF SURGEONS, IRELAND.

AN election for a Professor of Ophthalmic and Aural Surgery, in the Royal College of Surgeons in Ireland, in the room of Mr. Swanzy, who has resigned, will be held on Monday, May 8th. The vacancy in the Council of the College, caused by the resignation of Mr. Jacob, has been filled by the election of Mr. J. A. Baker, a dental surgeon, who obtained a majority of seventeen votes over his opponent, Mr. Nixon.

THE HOSPITAL SATURDAY FUND CONVALESCENT HOME.

AGAINST the views of some of the best friends of the Hospital Saturday Fund, it has been resolved, on the motion of Mr. Dickinson, to push the scheme for a convalescent home. Mr. Pizey moved that till the Hospital Saturday Fund reached the sum of £20,000 the proposal should not be entertained. Mr. Morley thought further consideration desirable; but all opposition was unavailing, and Mr. Dickinson's resolution was carried.

DEATH OF CHARLES R. DARWIN, F.R.S.

CHARLES ROBERT DARWIN, M.A., F.R.S., the distinguished naturalist, died on Wednesday last, at his residence, Down House, near Orpington, Kent. The deceased was born in 1809, and amongst the numerous literary and scientific honours conferred upon him was that of Honorary M.D. Leyden, which he obtained in 1875.

THE ROYAL VISIT TO MENTONE.

WE are authorised to state that during the time of Her Majesty's visit, before, and subsequent to that visit, the health of Mentone was remarkably satisfactory—indeed, could not have been better; while the sanitary condition of the house in which Her Majesty resided was all that could be desired.

A COURSE of Demonstrations on the Comparative Osteology of the Vertebrata will be given in the Museum of the Royal College of Surgeons by Dr. Garson on Tuesday afternoons, at 4 o'clock, commencing on May 2nd and ending on July 25th. The following subjects will be treated of: 1, The Vertebral Column; 2, the Sternum and Ribs; 3, the Shoulder Girdle; 4, the Pelvic Girdle; 5, the Long Bones of the Limbs; 6, the Hand; 7, the Foot; 8, the Homologies of the Limbs; 9, the Skull in Man; 10, Varieties of the Skull in Man; 11, 12, and 13, the Skull in other Vertebrates. The course will be free to students and other visitors to the Museum.

AT the adjourned meeting of the governors of the Bristol General Hospital, held on the 13th instant, the resolution that "Rule 1, section 2, be altered by omitting the words 'without power to vote,'" was carried by a large majority. This rule, it will be remembered, has reference to the question of voting by the medical members of the committee of the hospital—a power which has not hitherto been enjoyed by them. The passing of the above resolution will, if confirmed, remove this absurd restriction, and place the representatives of the medical staff on an equality with their fellow committee-men.

THE death is announced of Staff Surgeon J. M. Carogher, one of the oldest medical officers in the Royal Navy. He entered the Navy at the commencement of the present century, and had seen much active service. The senior medical officer in the Navy now is Staff Surgeon William St. George Davies, J.P., of Hove, Brighton, who entered the service in 1806 and passed as surgeon R.N. 1808.

THE trial of Roderick Edward Maclean at Reading, on Wednesday, for high treason in firing a pistol at the Queen, resulted, as was to be expected, in a verdict of "Not guilty on the ground of insanity." The prisoner was accordingly ordered to be detained in custody during Her Majesty's pleasure.

DR. DUNCAN MACKAY, who has unofficially made an examination of samples of the buns the eating of which produced so much sickness on Good Friday at Inverness, has satisfied himself that the buns contained arsenic. Dr. Littlejohn, however, it appears, has not succeeded in discovering any mineral poison in the samples forwarded to him.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Epping (*Rural*).—Mr. Trevor Fowler reports for 1881 a death-rate of 14·0 per 1000 population, and a birth-rate of 31·4 per 1000. His attention during the year has been called for by scattered cases of small-pox, chiefly introduced into the district from London, cases of scarlet fever, of typhoid fever, and of diphtheria, but no extension of either disease took place. Several of the small-pox cases were removed to Homerton or Higbgate Hospitals. "The more populous portions of the districts of Chigwell, Epping, and Harlow," writes Mr. Fowler, "are now supplied with water, and have drainage systems, and a large amount of work has been done during this year in connexion with these." A number of certificates were given under the Public Health (Water) Act; numerous houses were supplied with water from the mains; many houses were also connected with sewers, and generally the sanitary administration of the district was actively attended to.

Handsworth (*Urban*).—Dr. J. B. Welch reports a death-rate of 12·8 per 1000 population, and a birth-rate of 31·8, the mean annual death-rate during the decade 1871–80 being 15·08 per 1000 population, and birth-rate 32·6. "During 1881," writes Dr. Welch, "the health of the district was exceptionally good, and the death-rate compares favourably with that of any previous year in all respects." No wide-spread outbreak of zymotic disease occurred during the year, with the exception of measles and whooping-cough. Improved habits of cleanliness among the population are noted. "Speaking generally," writes Dr. Welch, "small house property is now kept cleaner and better than it was a few years since." He speaks also, since the Board undertook the removal of midden-refuse, and of large reconstructions of wet-middens, of the rare occurrence of overflowing and leaking ashpits, of the abatement of slop-nuisance since houses on the new lines of sewers were connected with them, of numerous wells closed and Corporation water supplied to houses, and of considerable restraint put upon pig-keeping.

Coventry (*Urban*).—Dr. Mark Fenton reports for 1881 a death-rate of 19·1 per 1000 of the population, and a birth-rate of 33·6. In successive decades the mean annual death-rate was 27 per 1000 population (1841–51), 25 (1851–61), 22 (1861–71), and 20 (1871–81). Since 1851 a plentiful and pure supply of water has been provided for the city, and is now used in 95 per cent. of the houses; a system of well-ventilated sewers has been introduced; thousands of middens and other accumulations of filth have been abolished; and the scavenging and cleansing of the city are undertaken by the sanitary authority. But Dr. Fenton holds that the death-rate of the city may be reduced by 5·0 or 6·0 more than its present amount, and this we may take he aims at. Coventry is an old, entangled city, and he is rightly sensitive upon any encroachments upon present open spaces. He attributes much influence upon the declining mortality of the city to the arrangements for dealing with infectious diseases, and especially to the establishment of a fever hospital. During the past year 156 patients suffering from scarlet fever were admitted, and it is reported that "the prejudice against hospital treatment which existed in the minds of the people has almost entirely disappeared. Numbers of parents now apply to have their children removed there, but no children are removed from home except where danger would arise from their remaining." The failure of isolation in checking an outbreak is attributed to the lateness in isolating cases, and it is anticipated that when provision is made to bring every outbreak at once under the observation of the sanitary authority this failure will be prevented. An outbreak of enteric fever is recorded arising from the pollution of a local well, out of eighteen families using the water thirteen being affected. Attention is directed to the meagre and imperfect building by-laws of the city, the "model" by-laws of the Local Government Board not having commended themselves to the local authorities.

Withington (*Urban*).—Dr. Railton reports for 1881 a death-rate of 13·5 per 1000 population, and a birth-rate of 26·5. It is also noticed that the infantile mortality of the district shows a distinct improvement, with the exception of one township, and in the latter the difference is slight. Dr. Railton urges that in all cases where the stoving of bedding is required the operation should be carried out free of charge to the householder. The prevalence of the principal zymotic diseases in the district during the year does not call for special comment.

Abram (*Urban*).—Mr. Nathan Hannah reports for 1881 a death-rate of 16·7 per 1000 population, and a birth-rate of 40·3. The population of the place has more than doubled since the census of 1871. The infantile mortality-rate does not present so satisfactory a state as Mr. Hannah would have desired. The water-supply of the place and the sewerage do not appear to be wholly satisfactory, difficulties having interfered with the sanitary authority carrying out what was desirable in both respects. Choked sewers and ashpit accumulations are the most prominent nuisances, but both

occur in less amount. Means for dealing with infected bedding, and for the isolation of infected sick, are needed.

Guildford (*Urban*).—Dr. Morton reports for 1881 a death-rate of 15 per 1000 population, and a birth-rate of 28·45. Guildford is a cesspool town; but Dr. Morton tells us that the ventilating of cesspools and drains is very carelessly attended to, the by-laws with regard to these matters being "but seldom carried out." The low service water-supply is liable to deterioration from an open reservoir upon it which needs covering. The new arrangements adopted for the removal of ashes and refuse from the town do not give complete satisfaction.

Erith (*Urban*).—Mr. Jessett reports for 1881 a death-rate of 11·1 per 1000 population. A considerable part of his report is occupied with complaints of nuisance from the outfalls of the metropolitan main sewerage into the river Thames at Barking and Crossness, and he speaks of "the vile stench emitted from the mud on our shores at low tide during the excessive heat of last summer," adding, "all the yachtsmen who lay off our town will agree as to the filthy masses of black sewage washed backwards and forwards by their yachts during that heat, and of the stench emitted from the river generally." He thinks that the question is ripe for the interference of the Local Government Board in the form of a sanitary inquiry. The Local Board have interfered effectively in controlling the emission of noxious vapours from manufactories within their district. Mr. Jessett urges the need of an infectious disease hospital in the district, not from the number of cases occurring, but for the more effectual control of the few cases that do occur. He states, moreover, that "scavenging of the district has been decidedly more effectually carried on than in previous years."

Maidstone (*Urban*).—Mr. Adams reports for 1881 a death-rate of 14·19 per 1000 population, and a birth-rate of 32·92. The particular sanitary event during the year was the occurrence of small-pox, of which a special report has already been presented to the authority and noted. Other infectious diseases have not given rise to particular remark. Of sanitary improvements, the extension of the Company's water mains to Tovil, the construction of an automatic flushing tank in Upper Fant-road, and the removal of the college lock and lock-house on the river, form the more noteworthy. The flushing-tank ordinarily discharges 3000 gallons in two minutes automatically twice in three days, oftener in wet weather. "Besides these principal improvements," writes Mr. Adams, "it is a great pleasure to note the manifest changes for the better in the poorer quarter of the town, parts which a few years since were reeking with cesspool abominations, and other filthy nuisances which go hand-in-hand with cesspools, are now, in most cases, well drained, and by comparison clean and wholesome; and with this change the general tone of the people, from a sanitary aspect, is greatly improved. Where formerly in our periodical inspections we were met by cold indifference or rude repulse, now it is with cheerfulness or abashment, in proportion to the expectation of praise or blame." The selection of a site for a new infectious disease hospital has occupied the sanitary authority, and one has been secured which appears to be most suitable. The present hospital accommodation is supplemented with tents. Together there were admitted into them last year forty cases of small-pox, two of scarlet fever, four of enteric fever, and one of roseola. Mr. Adams urges the employment of trained nurses to "look up and look after" cases of infectious disease. "I have seen much good done by this means, and feel convinced it would be a great advantage if other parishes would follow suit; no kind of charity can be more useful or welcome or better deserve support."

Halifax (*Urban*).—Mr. Ainley reports for 1881 a death-rate of 21·4 per 1000 of the population, "the lowest death-rate on record since the vital statistics of the borough have been registered." The chief incident in the disease prevalence in the year was the occurrence of scarlet fever which was investigated by Dr. Ballard of the Local Government Board, who, as we noted at the time, confirmed Mr. Ainley's conclusions previously arrived at, of the circumstances accompanying and favouring the prevalence and dissemination of the disease. Respecting small-pox, Mr. Ainley observes: "With regard to isolation, we have learnt this lesson during the year, that no isolation is so effective as removal to the hospital. Persons who live in large houses with spare rooms and other conveniences try to isolate themselves, but in many cases it is a miserable failure. The authorities are acting wisely in building a small-pox hospital to provide for complete isolation, and, indeed, only by such means can they ever check so contagious a disease." The Goux system of excrement disposal still seems to remain in favour, and to be extending its operations in Halifax.

Chailey (*Rural*).—Mr. Richard Gravely reports for 1881 a death-rate of 11 per 1000 population, "the lowest death-rate on record," and a birth-rate of 28 per 1000 population. Respecting zymotic diseases, he says that the deaths registered under the head of zymotic causes "are the fewest in number I have ever recorded, six only having been registered." He reports further, with regard to the village of Ditchling, systematic inspection was made, and "it was encouraging to find that so much good sanitary work had been done there, most, if not all, the objectionable cesspools having been removed, and the closets connected with the main sewer." He reports also an improvement in the ventilating and heating of the "large class-room" in the Barcombe schools; but adds, "the closets are still unsatisfactory, the objectionable cesspool being retained without either ventilation or pans." Of the Ringmer Board Schools he observes "that the closets at these new (!) schools are most filthy and objectionable," but there is promise of improvement this spring. Mr. Gravely concludes by stating that he has for the year 1881 "been enabled to report a less amount of sickness, and as a consequence fewer deaths, than have taken place in the Chailey district since the Public Health Act has been in force."

Belfast.—During March 33 cases of small-pox were reported by the dispensary medical officers, and removed to the Union Hospital for contagious diseases. The births numbered 687, and the deaths 539, which latter included 96 from phthisis and 115 from other diseases of the respiratory organs, showing a mortality of 211 from affections of the lungs. The average death-rate for the five weeks ending the 25th ult. was from all causes 27·0; lung diseases, 10·0; zymotic diseases, 2·5; and from small-pox, 0·9. In consequence of the trying weather during the last half of March, a marked increase took place in the mortality from chest affections. Dr. Browne, medical superintendent officer of health, reports that there has been a marked decrease in the number of cases of small-pox for the last four weeks, and he now trusts that this loathsome disease will soon entirely disappear. The other principal zymotic diseases were comparatively few in number during the past month, with a very light mortality.

Cork.—For the four weeks ending March 25th there were 173 births registered, being equal to 28·70 per 1000 inhabitants; the deaths amounted to 180, including 40 persons dying in the workhouse, and therefore outside the borough, who formerly had resided in the city. The annual death-rate per 1000, omitting the 40 deaths which took place in the workhouse, was 23·04, from infectious diseases 1·8, and an infant mortality of 4·5. These statistics show that no material change has taken place in the urban death-rate as contrasted with that for a corresponding period last year; but a marked decrease has taken place in the cases of fever reported by the local dispensary medical officers.

The Metropolitan Asylums Board, with several friends, visited and inspected the disused Fulham Small-pox Hospital on Saturday, the 15th inst. They found the buildings and their appurtenances in perfect order, and obviously regarded regretfully so much good hospital accommodation lying idle.

In consequence of the spread of small-pox in Wells and its neighbourhood it has been found necessary to erect a number of huts for the patients attacked with the disease.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5606 births and 3956 deaths were registered during the week ending the 15th inst. The annual death-rate in these towns, which had been equal to 23·2 and 22·3 per 1000 in the two preceding weeks, rose last week to 24·4. The lowest rates in these towns last week were 16·9 in Derby, 18·7 in Newcastle-upon-Tyne, and 18·9 in Sheffield. The rates in the other towns ranged upwards to 31·7 in Portsmouth, 32·4 in Brighton, 33·3 in Wolverhampton, 34·5 in Manchester,

and 34·6 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 606, and exceeded by 16 the number returned in the previous week; 221 resulted from whooping-cough, 162 from measles, 74 from scarlet fever, 58 from "fever" (principally enteric), 43 from diarrhœa, 35 from diphtheria, and 13 from small-pox. No deaths from any of these zymotic diseases were recorded in Halifax, while they caused the highest death-rates in Portsmouth, Bolton, and Wolverhampton. Whooping-cough caused the highest death-rates in Brighton, London, and Bolton; measles in Bolton, Portsmouth, and Wolverhamptom; scarlet fever in Nottingham, Wolverhampton, and Hull; and "fever" in Portsmouth and Liverpool. The 35 deaths from diphtheria in the twenty-eight towns included 28 in London and 4 in Portsmouth. Small-pox caused 9 deaths in London and its suburban districts, 3 in Bolton, and one each in Oldham and Hull. The number of small-pox patients in the metropolitan asylum hospitals, which had been 367 and 352 on the two preceding Saturdays, further declined to 337 at the end of last week; and only 37 new cases of small-pox were admitted to these hospitals during last week, showing a further decline from 83 and 42 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London rose again to 392 last week, against 408 and 333 in the two preceding weeks; they were, however, 47 below the corrected average weekly number. The causes of 102, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Nottingham, Birkenhead, and Blackburn; whereas the proportions of uncertified deaths were largest in Bolton, Salford, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 22·0 and 22·1 per 1000 in the two preceding weeks, rose to 24·8 during the week ending the 15th inst., and exceeded by 0·4 the mean rate in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these towns, which had been 73 and 94 in the two previous weeks, further rose to 103 last week; of these, 28 resulted from whooping-cough, 27 from diarrhœa, 17 from measles, 12 from "fever," 12 from diphtheria, 7 from scarlet fever, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 4·4 per 1000 in the eight towns, and was 0·7 above the average rate from the same diseases in the English towns; the rates from these diseases ranged from 2·5 in Leith, to 5·3 in Aberdeen and 7·3 in Paisley. The 28 fatal cases of whooping-cough showed a further slight increase upon recent weekly numbers, and included 17 in Glasgow and 4 in Edinburgh. The 27 deaths attributed to diarrhœa showed a large proportional excess upon the number referred to this cause in the English towns, and were more than twice as numerous as those returned in the corresponding week of last year. The 17 deaths from measles showed a further increase, and included 7 in Glasgow, 4 in Aberdeen, and 3 in Paisley. The 12 deaths from diphtheria, of which 5 occurred in Glasgow and 3 in Edinburgh, were 2 below the number in the previous week. The 12 deaths referred to "fever" exceeded the number in any recent week, and included 5 in Glasgow and 2 both in Edinburgh and Paisley. Two of the 7 fatal cases of scarlet fever were returned in Glasgow and 2 in Paisley. The 137 deaths referred to acute diseases of the lungs showed a marked increase upon the numbers returned in recent weeks, but were 7 below the number returned in the corresponding week of last year. A considerable proportion of the increased mortality of last week occurred among persons aged upwards of sixty years.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 36·0 and 27·7 per 1000 in the two preceding weeks, was equal to 28·3 in the week ending the 15th inst. During the first thirteen weeks of this year the death-rate in the city averaged no less than 35·2 per 1000, against 25·6 in London and 20·0 in Edinburgh. The 189 deaths in Dublin last week showed an increase of but 4 upon the comparatively low number returned in the previous week. They included 14 which were referred to measles, 7 to "fever" (typhus, enteric, and simple), 1 to diphtheria, and not one either to small-pox, scarlet fever, whooping-cough, or diarrhœa. Thus 22 deaths resulted from the principal zymotic diseases, against numbers declining steadily from 45 to 22 in the five preceding weeks; they were equal to an annual rate of 3·3 per 1000, against 4·0 in London and 3·4 in Edinburgh from the same diseases. The 14 deaths from measles corresponded with the number in the previous week; since the beginning of the year no fewer than 400 deaths from this disease have been recorded within the borough. The 7 deaths from "fever" also corresponded with the number in the previous week, and were equal to a rate considerably exceeding that prevailing from the same cause in the large English towns. The deaths of infants showed a further decline from recent weekly numbers.

FLOATING KIDNEY.

A CAREFUL and learned study of "Floating Kidney," a subject of great general interest, has lately appeared from the pen of Dr. Leopold Landau.[1] The frequency with which "so-called movable kidneys" are observed in the living subject, and the rarity with which they are seen in the dead-house, have induced some to question their reality; while personal experience of one or more cases in which they have led to more or less serious symptoms has lately induced others to advise their removal on small provocation. The frequency of their occurrence in women is a point which certainly requires explanation. All the bearings of this subject are dealt with in a treatise of some hundred pages.

The acquired dislocation of the kidney seems to have been first mentioned by Franciscus Pedemontanus in the sixteenth century, and its clinical value first pointed out by Riolan in the seventeenth century. It remained, however, for Aberle to publish in 1826 four cases in which autopsies had confirmed diagnosis during life. Since then too many cases have been dissected to justify scepticism on the question. In discussing the mechanism of the displacement, the author considers the normal fixation of the kidney, and lays much stress on the intra-abdominal relations of pressure, pointing out the interesting fact that, although the kidneys generally remain *in situ* on opening the abdomen, and raising the body upright, by means of their attachments, in some cases they become more or less dislocated, as was pointed out by Sappey. The cases in which diagnosis of a movable kidney during life has been followed by a post-mortem discovery of the kidneys *in situ* by no means disproves the correctness of the diagnosis, considering that the kidney, which can during life be pushed into its normal place, may sink there in the recumbent position after death, and become fixed by the setting of the fat round it. Seventeen autopsies of dislocated kidneys are given. The etiology is to be found by referring to the forces which normally fix the kidney; these are two in number: the arrangement of the attachments of the kidney and the intra-abdominal relations of pressure. Whatever disturbs either of these favours dislocation. The commonest of these predisposing causes are emaciation, abscess in the neighbourhood, and loss of firmness and elasticity in the abdominal walls. The exciting causes may be jerks or the traction of viscera (especially the colon) in a belly more or less pendulous; but we cannot follow the author in including such firm pressure as bearing down of all sorts. The connexion of hydronephrosis with movable kidney is obvious, and is borne out by numerous facts; the connexion of hydronephrosis with pelvic tumours, with pelvic cicatrices, and with procidentia uteri has been observed, but our author includes flexions of the non-pregnant uterus, and refers to two cases, which, he says, "convincingly prove" this. We have referred to one of these, and find ourselves less convinced than before, the case not having furnished an autopsy, and the relation of one condition to the other being based upon pure theorising. The other we cannot find in the medical libraries of London.

Dr. Landau discusses the corset and acquits this popular scapegoat. With regard to the frequency of right-sided affection, he finds the explanation of this in the firmer attachments of the left kidney, which are considered principally in connexion with those of the colon, but also of the duodenum and pancreas. The symptoms are regarded from

[1] Die Wanderniere der Frauen, von Dr. Leopold Landau. Berlin Hirschwald, 1881.

the point of view of the nervous, vascular, digestive, and urinary systems. Under the first the increased pain in movable kidneys at the menstrual period is brought into relation with the "aching kidney" of Duncan. A remark is made, which seems to us wise and most pregnant, with regard to all alleged mutual pressures of neighbouring organs, a force constantly invoked for the explanation of pelvic symptoms, that the kidney has not *weight* but *specific gravity*, an expression to be understood, of course, not with reference to water but to the intra-abdominal pressure, and to be remembered in the case of all internal organs. The phenomena of strangulation ("Einklemmungserscheinungen") in a floating kidney meet with the attention they deserve. The German name has not, to our knowledge, an exact English equivalent in use. The symptoms usually follow exertion or quick movement, and consist of severe pain, collapse, vomiting, high-coloured and scanty urine, sometimes containing blood, some fever, together with the rapid growth of a large dull tumour in the region of the floating kidney. The symptoms increase in from four to six days, the tumour disappearing in one or two weeks. The first sign of recovery is the plentiful secretion of urine of low specific gravity. These phenomena are referred by the author to torsion, or angular flexion of the renal vessels, especially the renal vein; and this view is illustrated by diagrams of actual experiments. The favourable termination of these cases is explained by the fact that, even if the torsion or angular flexion is not obliterated, a collateral circulation is established, even after ligature of the renal vein. This view is supported by a post-mortem observation by Mosler. It covers the connexion between movable kidney and hydronephrosis, either temporary or permanent, a connexion supported by facts. It can be easily understood how obstruction by flexion of the ureter may be relieved by the supine decubitus, especially if tension be diminished by aspiration. The author lays stress on the untrustworthiness of percussion in the diagnosis of movable kidneys, and gives cases where no difference could be detected between the two sides, even after excision of a kidney; a remark of Skoda's, that resistance rather than resonance is to be relied on in percussing the kidney, points in the same direction. The author ventures to assert that auscultation will detect a whistling murmur in cases of torsion of the vessels, a supposition which the analogy of ovarian tumour with twisted pedicle does not as yet confirm. A floating kidney not very uncommonly disappears permanently, in other words becomes fixed again. It is easily intelligible that if emaciation (especially where rapid) and relaxation of the abdominal walls can produce luxation (as happens sometimes after childbirth), rest in the supine position, together with the production of fat, may fix the kidney in its place again. The author's experience leads him to disapprove of all special contrivances for keeping the kidney in position, and to prefer a good broad bandage, but especially the much-abused "swan-bill corset"! All such contrivances, of course, can only be palliative. With regard to the proposed extirpation of uncomplicated floating kidneys, the author makes a remark whose scope is by no means limited to this affection:—"The fact that a patient, immediately after extirpation of a floating kidney, feels better and suffers no inconvenience from the floating kidney is no more astonishing than that a woman no longer suffers from menorrhagia after removal of the healthy ovaries or uterus.....The amputation of a normal cervix uteri or the removal of healthy ovaries, perhaps the cause of dysmenorrhœa or some other slight suffering, is not to be justified; how much more unjustifiable is the extirpation of an organ so essential to life as the kidney?" In discussing the treatment of hydronephrosis the author prefers the establishment of a fistula to extirpation, on the sensible grounds that, apart from the increased risk of the latter operation, the discharge from the fistula is found to become more and more urinous, proving the partial recovery of function by the remainder. Besides, even if we are sure that the other kidney is healthy, experience shows that two kidneys are not one too many for an individual, and that many would be glad of a larger allowance. Eight personal observations are given of the greatest interest, for which we must refer our readers to the original, only here remarking that in two cases pressure on a right kidney caused pain in the *left* lumbar region, an observation very instructive to the gynæcologist, who often finds the same phenomena in connexion with the ovaries. The paper ends with a list of 45 cases, from which, on analysis, we find that 11, or about 25 per cent., had pendulous belly; 6, or about 13 per cent., had descent of uterus or vagina; 3, or about 7 per cent., had hernia, and 7, or about 15 per cent., had "retroflexion" of the uterus. Displacements of the uterus are frequently mentioned by the author, but he never uses any word but "retroflexion." If these proved to be cases of retroversion with descent, with or without retroflexion, all the above women, twenty-five in all, or more than 55 per cent., suffered from diseases associated with disturbance of the intra-abdominal relations of pressure—a most pregnant fact.

A work like Dr. Landau's should be generally accessible, and we recommend it to the attention of translators.

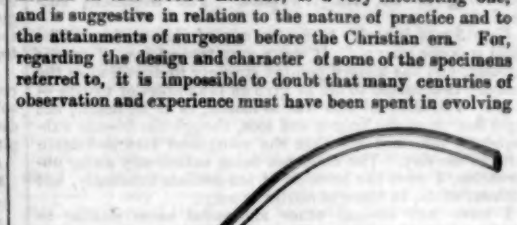
Correspondence.

"Audi alteram partem."

THE SURGICAL INSTRUMENTS FOUND AT POMPEII.

To the Editor of THE LANCET.

SIR,—The collection of surgical instruments found in Pompeii, and now in the museum of Naples, which was noticed in last week's LANCET, is a very interesting one, and is suggestive in relation to the nature of practice and to the attainments of surgeons before the Christian era. For, regarding the design and character of some of the specimens referred to, it is impossible to doubt that many centuries of observation and experience must have been spent in evolving



examples of mechanism so efficient and so well constructed. I have looked over them several times; but in 1871 I made a careful sketch of the single male catheter which was found, and have shown it once or twice to my class at University College Hospital. Thinking your readers would like to judge for themselves of this interesting relic, I have had a reduced facsimile drawing made, which represents the form of the instrument exactly. It is by no means a bad one; the entering end might be advantageously curved a little more perhaps, whereas the upper or handle end presents the rather better curve of the two. The material is bronze, it is about twelve inches long, and the size is No. 9 or 10 of the English catheter scale. I am, Sir, your obedient servant,

Wimpole-street, W., April 17th, 1882. HENRY THOMPSON.

NITRITE OF AMYL IN INFANTILE CONVULSIONS.

To the Editor of THE LANCET.

SIR,—The successful issue of a case of tetanus treated mainly with nitrite of amyl, which was recorded in THE LANCET of March 25th, and the rapid relief of hour-glass contraction of the uterus, published recently elsewhere, induce me to record a few trials which I have made with this agent in the convulsions of children.

Case 1 was a boy, three years old, suffering from cerebral abscess, probably the result of amateur treatment of profuse otorrhœa by a sugar of lead lotion. The treatment of the affected side adopted was puncture of the bulging membrana tympani, the natural opening made by the confined pus having healed up, counter-irritation over the mastoid process, an occasional calomel purge, and a bromide of potassium mixture, five grains of the salt being given every three hours. In spite of this treatment, convulsions were frequent and prolonged. I now ordered one-third of a minim of nitrite of amyl in mucilage every three hours, and left directions that this mixture was to be applied at once to

the child's nostrils (the amyl floating on the mucilage) on the least sign of a fit. The child had only one convulsion in the course of the first twenty-four hours of this treatment, and during the three remaining days of the child's life I had no difficulty in keeping those symptoms under control, though I found it necessary to increase, by about one-third, the dose every twenty-four hours.

Case 2 (tubercular meningitis in a boy of six) had been ill for rather more than a fortnight, and for two or three days had been in almost constant convulsion. To alleviate this state, three grains each of the bromide and iodide of potassium had been regularly administered every three hours for forty-eight hours, but without much apparent effect. The nitrite of amyl was ordered to be administered in the same way as in Case 1, and its use was followed by very marked improvement; the twitchings almost entirely ceased, and the child had some hours of sleep. The drug was discontinued on the fourth day, as the larger doses necessary to subdue the fits caused much panting, and the parents, knowing the disease to be almost certainly fatal under any treatment, relaxed their efforts.

Cases 3 and 4 were similar. Both were in very young children, respectively five and nine months old. The convulsions in both cases were traceable to dentition, and in both cases the inhalation of the nitrite of amyl quelled successive fits. The older of the two also took occasionally one-fourth of a drop dissolved in spirit, and given on sugar, according to Dr. Ringer's plan. The treatment succeeded.

Case 5 was brought to me as one of rheumatism. The child was one year old. It was a very typical case of spastic rigidity, and the history pointed strongly to dentition as the cause. It occurred to me to give an inhalation of nitrite of amyl. The effect of this was to loosen, as if by magic, the rigid flexion of the fingers and toes, though the friends subsequently informed me that the symptoms returned again later in the day. The child not being sufficiently under observation, I gave the bromide of ammonium internally, but without effect, in place of nitrite of amyl.

I have had several other successful cases similar to the first four that I have given, but which, for the sake of brevity, I omit.

It is strange that since Dr. Lauder Brunton's experiment (*Centralblatt für Med. Wissenschaft*, 1873), by which it was shown that the convulsions of a frog tetanised by strychnia may be arrested by plunging it into the vapour of nitrite of amyl, so little trial should have been made of this drug in the treatment of tetanus and allied conditions. This is no doubt to be traced to the prevalent belief that nitrite of amyl is a highly dangerous drug, and that its effects are too transitory to be of any real service. Dr. Ringer has, however, shown that, according to his experience, it may be given with safety for months, and that its effects are sufficiently abiding to have a marked influence for good in some cases of epilepsy and in many of the derangements incidental to the change of life in women. In the convulsions of children this drug seems to me to combine in itself the temporary usefulness of chloroform inhalation and the more lasting effect of such sedatives as the bromides. Its administration as an inhalant may further be left in the hands of people of ordinary intelligence, and its smell is agreeable. Of course, so far it can only be regarded as an adjunct in the cure of convulsions to the rational treatment of the morbid state of which the convulsions are mere symptoms—symptoms which, however, are occasionally the direct cause of death by producing asphyxia, and which, more than any other, wring the maternal heart.—Your obedient servant,

A. E. BRIDGER, M.D. Edin., B.Sc. Paris.

Walterton Road, W.

"PAYING MEDICAL BILLS OUT OF AN ESTATE."

To the Editor of THE LANCET.

SIR,—It is not my wish to drag this case again before my professional brethren, but a letter appears in your columns, signed "Audi Alteram Partem," which says that Mr. G. H. Jackson swore in court that he offered to pay us the money, and I swore in court that he never did so. I can only look for the solution of this contradiction in what the defendant admitted in the witness-box, that "his memory was very treacherous." I am, Sir, yours obediently,

Tottenham, April, 1882. W. H. PLAISTER.

SURGICAL EMPHYSEMA.

To the Editor of THE LANCET.

SIR,—Mr. Morgan, in his report of Surgical Emphysema, seems to think it improbable that the cough would be sufficient to produce such a state of affairs, and seems to lean more to mechanical agents as a cause of the emphysema; such, for instance, as the passage of an instrument or the penetration of a spicula of bone; although in his case he says, "the swelling was previous to all surgical interference."

I would suggest that nothing is more probable than for surgical emphysema to occur when a large bolus of meat is sticking in the throat, and at the upper or posterior region of the larynx, from the violent expiratory efforts which take place in order that the foreign body may be got rid of. In proof of this theory I would point out that I have seen surgical or general emphysema occur where there could be no suspicion of surgical interference, nor any spicula of bone to account for this condition. 1st. From sneezing alone, after taking a three-grain dose of iodide of potassium. This occurred in the case of a powerful muscular Irishman. 2nd. From coughing where sneezing was absent, as in the violent expiratory (?) efforts of whooping-cough. 3rd. From the violent expiratory efforts of parturition, where neither coughing nor sneezing was present. In all of the foregoing cases I have seen the emphysema involve the whole of the head, face, eyelids, and neck, as low as the clavicles in front and the scapula behind.

In my experience examples of general emphysema during parturition are not at all uncommon; and the swollen face, so common in whooping-cough, is in my opinion very largely due to emphysema, although congested vessels no doubt play a part. I am, Sir, very truly yours,

ALBERT S. MORTON, M.R.C.S. Eng.

Kennington-park-road, S.E., April, 1882.

To the Editor of THE LANCET.

SIR,—I would demur to Mr. Wyatt's explanation. Emphysema of the neck occurs in children somewhat as he describes; but then they invariably die. Besides, in attributing the rupture of the lesser air-tubes to expiratory efforts he assumes a direct relationship between these efforts and tension of the walls of the air-cells and bronchi. High authorities are agreed with him in so assuming; but I would respectfully suggest that they, like Mr. Wyatt, confound pressure with tension. Mr. Wyatt says: "It seems to me much more probable that the thinner bronchus would give way before the stouter trachea, the pressure on both sides being the same." The pressure is no doubt the same, but the tension is not; and this confusion of ideas, rather than any physical fact or law, is, I believe, the true basis of the so-called expiratory theory of the production of pulmonary emphysema. That the relationship in question is one of antagonism, the following experiment will show:—Take a cylinder and piston and, through a small opening into the chamber, pass a portion of a flaccid tube, hermetically sealed, containing air. An expiratory movement of the piston will compress the air in this tube and cause increased pressure on its inner wall, equally distributed throughout, according to the law of fluid pressure; but the part of the tube within the cylinder will nevertheless collapse, and that without the cylinder being put on the stretch. An inspiratory movement will reverse all this.

A minute opening in the trachea, only permeable to air or visible during distension, and such as would quite escape notice when looking for an "apparent rent," would account for the emphysema in Mr. Morgan's case, and in Mr. Wyatt's too; for it is to be noted that he makes no mention of having traced the air-blown tissue from the neck to the root of either lung. This was a marked feature in two cases I recently examined post mortem. An infant of eleven months, prostrate with diarrhœa, suddenly developed bronchial râles with feeble cough. Next day the neck was inflated, and continued so till death, two days later. A child of three years, which had always been the type of health, was seized with diphtheria, and died in three days. Thirty-six hours before death tracheotomy was performed and afforded complete relief to the respiration, which however continued

hurried. In twenty-four hours the neck was distended with air, and continued so till death. In both cases the right lung was highly emphysematous. Bubbles of cellular tissue covered the root, filled the mediastina, completely hiding the pericardium, and extended up into the neck. A considerable portion of each affected lung was in a state of collapse. In the infant there was pneumothorax of the same side. In neither case was the cough severe, and the second was remarkable for the development at least of the cervical emphysema after patency of the windpipe had been secured.

I have twice seen this complication precede death from whooping-cough, but only after broncho-pneumonia and general deterioration of tissue had afforded the conditions for the vicarious production of pulmonary emphysema by inspiratory effort, as explained by Gairdner.

I agree with Mr. Morgan in regarding the rupture as tracheal, but cannot see that the rarity of the accident affects the probability of the explanation. About seven years ago there was narrated in THE LANCET an exaggerated instance of its occurrence during labour, and followed by recovery. I cannot give the reference, but the case seems worth collating with those of your correspondents.

I am, Sir, yours truly,

WM. MCLAURIN, M.B., C.M. Glas.

London, April 16th, 1882.

"BLOOD-POISONING AT BRIGHTON."

To the Editor of THE LANCET.

SIR,—The Medical Officer of Health for Hove has in his letter suggested that the case of blood-poisoning may have been suppressed small-pox. Considering he had not seen the case, this is a rather bold assertion. I may say there was no doubt that death was produced by blood-poisoning caused by the state of the drains opposite the house. In reply to a question from the coroner, one witness said the deceased told her she was sickened by the smell from the drain. The deceased also told me the smell from the drain made her ill.

If your representative will avail himself of the invitation of the engineer, and walk along some of the streets in West Brighton, especially when the wind is southerly, he will then find the smell from the street ventilators most disgusting. If such smells are not prejudicial to health I fear the teaching of our sanatarians is grievously at fault. That the drains must be ventilated everyone will admit, but why not adopt some plan by which the foul gas may escape at the chimney tops?

I remain, Sir, your obedient servant,

West Brighton, April 18th, 1882. JOHN F. BOYES, M.B.

To the Editor of THE LANCET.

SIR,—In spite of the remarks in your last week's impression touching "rejoinders," I cannot refrain from commenting on a statement in Dr. Kebbell's letter. "Other cases [typhoid fever] arose from defects in the house drains, over which the authorities have no satisfactory control." By this avowal he discloses the feeble sanitary administration of the local authorities. Why have they no control over private drains and private connexions with main sewers? Because they have been so lethargic in these matters, and have not taken the trouble to frame a proper code of sanitary by-laws—such by-laws, for instance, as are advised by the Local Government Board; a copy of these can always be obtained by application to the department. If it be necessary to compel the pig-jobber to carry his "wash" in a covered receptacle through the streets before a certain hour; and the odd man or the maid-of-all-work to squirt the window at a certain time of the day, surely it is even more necessary that stringent by-laws should be enacted to compel the ventilation of private drains, often more foul than the public sewer, and to insist upon the disconnexion of all pipes which empty themselves immediately into the sewer. Mr. E. Clarke, in his letter, spoke of a defective sewer belonging to a private individual. He also said: "The present system of ventilation by gratings is, in my judgment, the best known practical means of effecting this object." Is there not a portion of a long street in Brighton where the open gratings (save one as an inlet) so loudly complained of have been closed, and a large shaft connected with the main drain and surmounted by a cowl has been erected; and has not this system, so well known but hitherto so little adopted, overcome the difficulties, removing all unpleasant emanations from the level of the road?

I am, Sir, yours faithfully,

Brighton, April 16th, 1882. SANITAS.

MILITIA SURGEONS: A HARD CASE.

To the Editor of THE LANCET.

SIR,—As I am confident that your journal is always willing to open its columns to any case of real grievance, where it can be shown that injustice and hardship are inflicted on members of the public services, civil, military, or naval, I will ask you to publish this letter, and so bring before the public the case of the militia surgeons of the United Kingdom, who, I am sure, after reading the following facts, you will admit are being treated with unheard-of, and hitherto unknown, injustice, from no fault or incapacity on their own part, but in consequence of the so-called exigencies and for the presumed benefits of the service. When we were appointed by the Lord Lieutenants of their respective counties (who formerly had the right of appointment of officers in the militia), such appointment was virtually to endure for life, or until we were incapacitated by age or infirmity, and then we were, after a certain number of years' service, to be entitled to a pension of 6*s.* per day. This state of things existed till 1875, when by the Act 38 & 39 Vic., cap. 69, it was enacted, that "all officers in the militia should be appointed by, and hold commissions from, Her Majesty." A Royal Warrant, dated July 19th, 1876, fixed the rank and rate of pay of surgeons in the militia, and stated further, that "nothing contained in that warrant should be held as giving to any medical officer of the militia a claim to any pension or retiring allowance granted to medical officers of Her Majesty's forces." There was nothing, however, said, or even implied, that militia surgeons were to forfeit any claims or rights they previously had under former Acts of Parliament; on the contrary, several militia surgeons having written to the War Office, asking whether, if they accepted service under the warrant, they forfeited their previous rights, received replies stating that by so doing they did not forfeit any claims or rights they previously had.

In January, 1881, a War Office circular was issued which contains the following clause:—"68*a*. No medical officer will be allowed to remain on the militia departmental list after he shall have attained the age of sixty-five years." In pursuance of such circular, the War Office have been calling upon and compelling militia medical officers to retire, when they reached the age of sixty-five years, and they refuse to grant them any pension or allowance whatsoever.

Two applications have been made by the Parliamentary Committee of the British Medical Association to the present Secretary of State for War, on behalf of the militia surgeons, for an interview to lay their just claims for compensation before him. No attention has been paid to these applications, and we are therefore compelled to bring our case before the public and the House of Commons by petition. I may confidently say we are the only known instance of any public servants, civil, military, or naval, being forced to retire, and without any compensation; and many of us are thus deprived of the sole means of support, and simply because we have reached the age of sixty-five years, at which time of life it is impossible for us to obtain any other appointments, or to begin practice in civil life. This rule, no doubt, may be right and applicable to the army and naval surgeons, who, when retired, have a very liberal pension to live upon; but certainly is not applicable to militia surgeons, who, at the very utmost, under the Acts of Parliament at the time they joined the service could never expect to receive more than 6*s.* a day; but even of this it is now sought to arbitrarily deprive us. In every case where offices have been abolished or taken over by the Crown, the officials connected therewith have been always compensated or pensioned when services were no longer required.

I remain, Sir, your obedient servant,

A SURGEON MAJOR IN THE MILITIA OF TWENTY-EIGHT YEARS' SERVICE.

April, 1882.

MEDICAL NOTES IN PARLIAMENT.

AMONGST the petitions recently presented to the House of Commons is one from Andover in favour of the compulsory notification of infectious diseases, another from the South-Eastern Branch of the British Medical Association in favour of the Union Officers' Superannuation (Ireland) Bill, and a third from certain citizens of London asking for the prohibition of trade cries on Sunday.

On Monday, the House reassembled after the Easter recess. Further petitions in favour of the Infectious Diseases Notification Bill were presented from Dover and Swansea.

Blind and Deaf-mute Children.

Mr. Woodall gave notice that on an early day he will call attention to the educational requirements of Blind and Deaf-mute Children, and to the equitable claim of those afflicted and necessitous classes to participate, for their instruction, and for the training of suitable teachers, in the Parliamentary grants from which they are now practically excluded.

On Tuesday, the Infectious Diseases Notification Bill was first on the list of orders for the day, but owing to the House being "counted out" on a preliminary motion it was not reached. Petitions in its favour were presented from Huddersfield, Dewsbury, Rochdale, and elsewhere. The order for the second reading was subsequently deferred to Wednesday next.

On Wednesday, notice was given of questions relating to the alleged prevalence of fever in Naas gaol.

Prison Dietary.

On Thursday, Mr. Alderman Fowler had upon the paper the following question:—"To ask the Secretary of State for the Home Department whether, in view of the verdict at a recent inquest at Chester on a discharged prisoner, that his death had been accelerated by his dietary in gaol, the prison authorities intend to modify the lowest scale, 'No 1,' of local prison dietary, at least in the cases of prisoners working at hard labour at the same time." Owing, however, to an Irish debate springing up in the middle of the list of questions, Mr. Fowler had no opportunity up to the time of our going to press.

Obituary.

ALGERNON FREIRE-MARRECO, M.A. DURHAM,
PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF DURHAM.

PROFESSOR ALGERNON FREIRE-MARRECO, who died at Newcastle-upon-Tyne on Feb. 27th, was born at North Shields in 1835; his father was descended from an old Portuguese family, but his mother was of English parentage. Mr. Marreco obtained most of his education in Portugal, but his studies were completed in England amid the chemical manufactures of the town in which he resided so many years. His great love for the physical sciences and for chemistry in particular displayed itself in his early youth; and this natural aptitude was fostered and matured by his training at the Escola Polytechnica of Lisbon, where he acquired an extensive knowledge of his favourite subjects. In addition to his profound knowledge of chemistry and the physical sciences, he was an accomplished linguist; he spoke Latin fluently, as well as English, French, German, and Portuguese. He was at one time one of the most trusted analysts in the North of England, but had given up his private practice for some years, thinking that his time belonged entirely to the University, in which for a long period he held the Chair of Chemistry. He displayed much interest in all who came under his influence, whether in the examination room or in the field. He had great admiration for athletic exercises, for which he had an open purse; indeed, in this, as in most other respects, he was a thorough Englishman. Professor Marreco was a member of the council of the Chemical Institute of Great Britain, a Fellow of the Chemical Society of Great Britain as well as that of Berlin, and for many years had been an examiner for the medical and science degrees of the University of Durham.

JOHN KING FORREST, F.R.C.S.I.

MR. FORREST died at his residence, Clare-street, Dublin, on Monday last, the 17th inst., after a week's illness. Deceased, who was a native of Cork, removed to Dublin in 1833, and shortly afterwards was appointed a demonstrator of anatomy in the Peter-street School of Medicine, and subsequently to the post of surgeon to Jervis-street Hospital, which latter he held until his death. He died from an attack of bronchitis, to which he was very liable, and which it is supposed was complicated with some cardiac affection.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen have passed the Second Examination for the Licence (Anatomy and Physiology):—

Blacker, Arthur Barry. | Stevens, Henry Geo. Lewis.
Westbury, Highett Philip.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on Tuesday last:—

Baber, John J. Yarrow, Thurloe-square.
Bateman, Hinton Ernest, Canterbury.
Beales, Thomas W. Lewis, Holland-road, Kensington.
Beswick, Robert, L.S.A., Cheshunt, Herts.
Bowe, Arthur, Shipley, Yorks.
Codd, Arthur F. Gamble, Clarendon-road.
Evans, William Henry, Seaton, Devon.
Everest, Clare Augustus, L.R.C.P. Ed., Gipsy-hill, Norwood.
Feeny, Michael Henry, L.R.C.P. Ed., Castlebar, Ireland.
Hearnden, Walter Carrington, Sutton, Surrey.
Hewitt, Frederick William, Grove-place.
Jalland, Robert Wallace, L.S.A., Horncastle, Lincoln.
Knowles, Robt. Broughton, L.R.C.P. Ed., Sussex-street.
Lea, Francis James, L.S.A., Downside, Bath.
Mole, Robert Bissell, L.R.C.P. Ed., Redditch.
Powell, Simpson, L.S.A., Southborough, Kent.
Sinclair, Thomas, M.D. Queen's Univ. Irel., Belfast.
Stivens, Bertram Herbert Lyne, Chester.
Vos, George Herklots, West Dulwich.
Willoughby, Alfred Harvey, Aberdeen-place, Maida-hill.

The following gentlemen were admitted Members of the College on Wednesday last:—

Black, Robert, L.S.A., Brighton.
Bull, William Charles, Bromborough.
Butler, Gilbert Edward, Hobart Town.
Goldney, Arthur Charles Nelson, L.S.A., Hammersmith.
Gunn, R. C. E. Fitzgerald, L.R.C.P. Ed., Rochester.
Horsfall, Thomas, L.S.A., Masham, Yorkshire.
How, George Henry, M.D. Philadelphia, Hayling Island.
Jackson, John Charles, Wellington-road.
Linney, William Wycliffe, Haverstock-hill.
Muriel, Cecil Joffery, L.R.C.P. Lond., Norwich.
Murray, H. H. Christopher, Wray-crescent.
Orton, Arthur, L.S.A., Foleshill.
Paterson, William Broenfield, Fleet-street.
Payne, William Arthur, Oswestry.
Phillips, Frank Leslie, L.S.A., Moseley, Warwick.
Phillips, George Henry, Newcastle, New South Wales.
Richardson, Adolphus Joseph, L.S.A., Sidney-square.
Rowell, Herbert Ellis, Lewisham.
Swift, Harry, Ely, Cambridgeshire.
Trapp, John Best, L.S.A., Bedford.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 13th and 14th inst.:—

Arthur F. Stace, James S. Robertson, Charles L. Hudson, Ernest H. Freeland, and Percy D. Bray, Middlesex Hospital; Hugh Armstrong, Wm. A. B. M'Cabe, Neill Mac Gilleaddy, Chas. Chambres, Frank C. H. Smith, and Lawrence Barnett, University College; Ernest H. Tubby, Reginald M. H. Randall, George E. C. Anderson, and William H. Bowes, Guy's Hospital; Albert E. Jolliffe, Edward Felix, Arthur D. Jollye, John D. J. Harris, John C. Smith, and John M'K. Ackland, Charing-cross Hospital; William J. Maurice and Ralph T. Cane, St. Thomas's Hospital; Herbert W. A. Branson, Cornelius C. Caleb, Robert N. A. Wallinger, and John P. W. Gray, King's College; William A. Wills and George C. Macdonald, Westminster Hospital; Richard Pinhorn and Robert Trevor, St. George's Hospital; Geo. W. H. French, St. Mary's Hospital; T. W. Hayward, Owens College.

Of the 232 candidates examined during the past fortnight, 43 failed to satisfy the Board, and were referred for three, and 2 candidates for six, months' further anatomical and physiological study.

COLLEGE OF PHYSICIANS IN IRELAND.—At the April examinations the following obtained the Licences in Medicine and Midwifery of the College:—

MEDICINE.—Ephraim MacDowel Cosgrave, Jas. Henry Daly, Thos. Daly, Chas. Ernest Denning, Robert Chas. Gardo Durdin, Michael

Leo Hearn, John M'Ilroy, John Oldershaw, Thos. Joseph Stafford.

MIDWIFERY.—John Edward Snow Barnes, Jas. Henry Daly, Thomas Daly, Charles E. Denning, Michael Leo Hearn, Wahab M'Murray, John Oldershaw, Thomas Joseph Stafford, William Christopher Thompson.

The undermentioned have been admitted Members:—

Henry Grier, Surg. A.M.D.
William Michael MacGrath.
Standish T. O'Grady, Surg. R.N.
Robert Leonard Rutherford.
John Tyndall, Surg. R.N.

The following passed the examinations for the Licences in Medicine and Midwifery last month, but did not comply with the regulations of the College by the time the lists for March were furnished:—

Charles Joseph Mac Cormack.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 13th:—

Berry, John Bourne, Eagle Lodge, near Galway.
Bush, James Paul, Bristol Royal Infirmary.
Benison, William Bedell, Holly Bank, King's Heath.
Horsfall, Thomas, Masham, Yorkshire.
Jalland, Robert Wallace, Horncastle, Lincolnshire.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Alfred George F. Bernard and Francis Dean, St. Bartholomew's Hospital.

THE Annual Fancy Ball in aid of the Cork Charitable Infirmaries was held this week.

A VERDICT of "Death whilst under chloroform properly administered" was the result of an inquest held on a patient who died whilst under treatment for a broken leg last week at Guy's Hospital.

CHILDREN'S HOSPITAL, BRISTOL.—A fund for the erection of a new and more commodious building has just been inaugurated.

MR. R. E. OWEN, M.R.C.S., hon. secretary of the Anglesey Hunt, has been presented with a service of plate by the subscribers.

AN inquest was held at Whetstone on the 13th inst. on the body of a man who, it was alleged, had died from gastric irritation arising from eating periwinkles.

MR. K. H. BOLD WILLIAMS, L.R.C.P.L., of Morannedd, has been placed on the Commission of the Peace for Denbighshire.

THE salary of Dr. Thomson, assistant medical officer to the Lambeth Infirmary, who has consented to withdraw his resignation, has been increased from £100 to £125 per annum.

A MAN whose age, said to be well attested, was 108 years, died last week at Southampton. In the same town is living a naval pensioner who will, it is stated, complete his 105th year in June next.

EAST LONDON HOSPITAL FOR CHILDREN.—Dr. Andrew Clark has consented to preside at the next anniversary dinner of this hospital, which is to be held at Willis's Rooms some time in June next. It has been decided that ladies shall be admitted as well as gentlemen.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—John Hannay, L.R.C.P. Edin., &c., of the Weobley district of the Weobley Union; Dr. Denton, of the third district of the Buckingham Union (third time).

THE report read at the annual meeting of the supporters of the Liverpool Hospital for Consumption, stated the income for the past year at £2167, and the expenditure at £1263. Patients to the number of 1300 had been treated. The chairman mentioned as a fact worthy of notice that one-half of the income of the hospital was derived from the patients themselves.

SEVERAL persons at Retley, Shropshire, who had the temerity to partake of a curious compound sold under the name of "jam," have, it is stated, been attacked with symptoms resembling those of irritant poisoning. The analyst to whom a sample was submitted pronounced it to be a mixture of "gooseberry tops," apples, rhubarb, and "other things."

BUCKINGHAMSHIRE GENERAL INFIRMARY.—At a general meeting of the governors of this hospital held last week it was decided to add two new wards to the present building, each ward to contain three beds. It was hoped that this addition could be made by means of the money already in hand, and without trenching upon the funds of the institution.

LEICESTER INFIRMARY.—The annual meeting of the subscribers to the infirmary was held on April 12th. The report and balance-sheet read were of a satisfactory character. The total amount received during the past year had been £14,702 12*s.* 2*d.*, the balance in hand being at the close of the year £2080 11*s.* 8*d.* During the year 1881, 10,044 persons had availed themselves of the benefits of the institution.

DEATH OF A "FASTING GIRL."—On Tuesday night the fasting girl, Christina Marshall, died at Strathaven. She had been ill for eighteen months, and for over a year had, it is asserted, taken no nourishment except sweets, and these only in moderate quantities. The case was investigated by many physicians, and for months she was closely watched.

CHARING-CROSS HOSPITAL.—The festival dinner in aid of the funds of this hospital was held at Willis's Rooms on Wednesday, under the presidency of the Duke of Edinburgh. His Royal Highness, in the course of his appeal in behalf of the institution, referred to the need of money to pay off the debt incurred by the execution of the necessary alterations and additions lately effected, and to restore to use the thirty beds which from want of funds had been kept vacant. The result of the appeal was an announcement of subscriptions and donations to the amount of £1564.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The usual quarterly court of directors of the above Society was held on April 12th, Mr. Charles Hawkins in the chair. A letter was read from the President, Sir George Burrows, Bart., expressing his regret at not being able to attend the meeting. Dr. Pitman proposed a resolution expressing the sympathy of the court with their President on his recent severe domestic affliction, which was carried unanimously. Four new members were elected, three had died, and one had resigned. Applications for grants were read from fifty-six widows, seven orphans, and three recipients of relief from the Copeland Fund, and it was resolved that a sum of £1126 be distributed among them. Three fresh applications for relief from widows were read, and grants to them were made amounting to £55. The directors recommend that Dr. Bisset Hawkins be elected at the annual general meeting a vice-president, in the place of Dr. Billing, deceased; and that Dr. F. Weber, Dr. Burdon-Sanderson, John Sebastian Wilkinson, Esq., Walter Rivington, Esq., G. Carrick Steet, Esq., and Arthur Evershed, M.R.C.P., be elected in the place of the six senior directors who retire. The annual general meeting was fixed for May 17th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ADMISSION TO THE PASS EXAMINATION FOR THE DIPLOMA OF MEMBER.

THE following report of the committee on the conditions of admission to the Pass Examination for the diploma of Member of the College was adopted at the last meeting of the Council. The members of the committee were Mr. Birkett (Chairman), Mr. Savory, Mr. Holmes, Mr. Wood, Mr. Bryant, Mr. Smith, Mr. Heath, the President, and the Vice-Presidents.

The committee, appointed on March 9th, 1882, to consider and report to the Council on the following proposal,—"That on and after the 1st of October, 1882, no candidate be admitted to the Final or Pass Examination for the diploma of Member until after the expiration of two years from the date of his passing the Primary or Anatomical and Physiological Examination unless he shall, before presenting himself for such Primary Examination, have completed the curriculum of professional study for the diploma, or shall possess a degree or diploma in Medicine or Surgery, or shall show reasons for exemption from this rule, which shall be satisfactory to the Court of Examiners"—have held two meetings, and have agreed to the following report:—

The committee recommend to the Council the adoption of the principle advocated in the foregoing proposal, that two years should elapse between the date of passing the Primary or Anatomical and Physiological Exami-

nation and the Pass or Final Examination for the diploma of Member, and with a view to giving effect to that principle, further recommend for approval by the Council the following regulation:—

Candidates commencing their professional education on or after October 1st, 1882, will not be admitted to the Pass or Final Examination for the diploma of Member until after the expiration of two years from the date of their passing the Primary or Anatomical and Physiological Examination for such diploma, except in the following cases:—

1. When a candidate, before presenting himself for the Primary Examination, shall possess a recognised degree or diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma.

2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary Examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the Primary Examination for the Fellowship, it being required in such case that not less than one year of attendance on the surgical practice of a recognised hospital shall intervene between the date of his passing the Primary Examination for the Fellowship and the date of his presenting himself for the Pass or Final Examination for the diploma of Member.

3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the Primary Examination at the end of his second winter session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the date of his passing the Primary Examination and the date of his presenting himself for the Pass or Final Examination for the diploma of Member.

4. When a candidate, owing to illness, duly certified by one or more of the teachers of his medical school, shall be prevented from presenting himself for the Primary Examination on the completion of his second year of professional study.

5. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary Examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ASHBY, Mr. ALFRED, has been appointed Public Analyst for the Borough of Newark.

BUCHANAN, PETER, M.B., C.M., has been appointed Medical Officer and Public Vaccinator to the Coleford District of the Monmouth Union, vice John Hatton, M.R.C.S., L.R.C.P., & L.S.A.Lond., resigned.

CAPE, JOSEPH THOMAS, M.R.C.S., L.S.A.Lond., has been re-appointed Medical Officer of Health to the Totnes Rural Sanitary District.

CULLINGWORTH, CHARLES JAMES, M.R.C.P.L., M.R.C.S., L.S.A.Lond., has been appointed Physician to St. Mary's Hospital for Women and Children, Manchester.

DAVIES, BENJAMIN, M.D.Ed., F.R.C.S.Eng., has been reappointed Medical Officer of Health to the Newport (Mon.) Port Sanitary Authority.

DAVIES, DAVID, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health to the Stapleton Urban Sanitary District.

EVANS, FRED. WM., M.D., C.M.Aberd., M.R.C.S. [not THOMAS EVANS, M.R.C.S., L.S.A.Lond., as stated in our last], has been appointed Medical Officer to the Cardiff North and Cathays District of the Cardiff Union.

HENKLEY, FRANK, M.R.C.S., L.S.A.Lond., has been appointed House-Physician to the London Hospital.

HOLDSWORTH, ARTHUR T., has been appointed Assistant Medical Officer to the Leicestershire and Rutland County Asylum.

HOUGH, CHARLES HENRY, M.R.C.S., has been appointed Surgeon to the Derby Provident Dispensary, vice Highton, resigned.

KELLY, MICHAEL FRANCIS, L.F.P.S.Glas., L.A.H.Dub., has been appointed Medical Officer of Health to the Felling Urban Sanitary District.

LEE, HERBERT GROVE, M.D. St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Chinnor District of the High Wycombe Union, vice Lee, sen., deceased.

PENNY, EDW., M.D., M.R.C.S., has been elected Resident House-Physician to the Seamen's Hospital, Greenwich, vice Le Cronier, resigned.

SANDERS, CHARLES, M.B.Lond., M.R.C.S., has been appointed Resident Surgeon to the Queen's Hospital, Birmingham.

SHONE, RICHARD L., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Mortlake District of the Richmond (Surrey) Union.

THOMAS, W. HOPKINS, L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health to the Maesteg Urban Sanitary District.

WARREN, THOMAS, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health to the Aylesbury Rural Sanitary District.

Births, Marriages, and Deaths.

BIRTHS.

BUCK.—On the 18th inst., at Walrond House, George-street, Ryde, Isle of Wight, the wife of Thomas Alpheus Buck, M.B.Lond., of a daughter.

CAUSTON.—On the 11th inst., at Pomona-place, Hammersmith, W., the wife of William H. Causton, M.R.C.S., of a son.

DAVIS.—On the 15th ult., at Fortress Gwalior, Central India, the wife of Dr. J. Norman Davis, Surgeon-Major, Army Medical Department, of a son.

HANSELL.—On the 27th Feb., at Sunnyside, Riversdale, South Africa, the wife of Wm. Chas. Hansell, M.R.C.S., of a daughter.

JONES.—On the 16th inst., at The Laurels, Loughton, Essex, the wife of George T. Jones, M.D., F.R.C.S., of a son.

ROBERTS.—On the 11th inst., at Eaton-gardens, Ealing, the wife of H. Prescott Roberts, M.D., of a son.

WHITE.—On the 7th inst., at West Knoll, Bournemouth, the wife of Gregory White, M.D., of a daughter.

MARRIAGES.

BRITTON—COWARD.—On the 13th inst., at St. Paul's Church, Huddersfield, by the Rev. S. B. Ainley (brother-in-law of the bride), assisted by the Rev. P. F. J. Pearce, Vicar, and the Rev. T. Perkins (cousin of the bride), John James Britton, Solicitor, of Heath House, Alcester, to Maud May, youngest daughter of the late James Eyres Coward, Esq., M.R.C.S., of Huddersfield.

CLUBBE—HARRISON.—On the 12th inst., at St. James's, Kidbrooke, Kent, Charles P. Barlee Clubbe, L.R.C.P.Lond., of Lower Tooting, S.W., eldest son of the Rev. C. W. Clubbe, Rector of Sigglesthorne, Yorks, to Ethel M. Jeffreys, second daughter of Charles Harrison, Esq., of Kidbrooke, Blackheath.

CULLINGWORTH—FREEMAN.—On the 15th inst., at Christ Church, Moss Side, by the Ven. Archdeacon Anson, assisted by the Rev. J. G. Stowell, B.A., Charles James Cullingworth, M.D., M.R.C.P., of Manchester, to Emily Mary Freeman, of Southsea, Hants.

DRYSDALE—SPOWART.—On the 12th inst., at St. John's Episcopal Church, Edinburgh, Arthur Drysdale, M.B., C.M., of Dunfermline, younger son of the late John Drysdale, of Kilrie, Fife, to Christian Mary, younger daughter of Thomas Spowart, of Broomhead.

FIRTH—MARRIOTT.—On the 13th inst., at the Parish Church, Swaffham, Norfolk, by the Rev. G. R. Winter, Vicar, Eustace Firth, M.B., C.M., of Debenham, Suffolk, youngest son of the late G. W. W. Firth, of Norwich, to Ellen Maria, eldest daughter of Robert Buchanan Marriott, Surgeon, of Swaffham.

GODFREY—WALKER.—On the 18th inst., at Holy Trinity, Clapham, Benjamin George Godfrey, M.R.C.S., L.R.C.P.Ed., of Devonshire Cottage, Balham, eldest son of the late Dr. Benjamin Godfrey, of Enfield, to Mary Georgina Annie, eldest daughter of the late James Walker, Esq., of Clapham.

MOWLL—STEDMAN.—On the 13th inst., at Great Bookham, by the Rev. E. Malleson, assisted by the Rev. W. R. Mowll (brother of the bridegroom), C. Havelock Mowll, Esq., third son of W. R. Mowll, Esq., J.P., of Chaldercotè, Dover, to Theodosia Mary Savignac ("Vigny") Stedman, only daughter of Arthur Stedman, M.R.C.S., of Great Bookham.

SWAINE—WARDROP.—At St. Andrew's Episcopal Church, by the Right Rev. the Bishop of Aberdeen, assisted by the Rev. G. M. Dawson and the Rev. Arthur Hill, Charles Lethbridge Swaine, Surgeon, Indian Medical Service, to Maude, daughter of Thomas Guille Wardrop, of Aberdeen.

WEIR—MEGAW.—On the 13th inst., at Christ Church, Upper Norwood, by the Rev. R. Allen, Vicar of the Parish, assisted by the Rev. J. Allan Bell, Vicar of Hayling Island, brother-in-law of the bride, and the Rev. D. W. Weir, brother of the bridegroom, Walter Weir, M.B., F.R.C.P., C.M.Edin., to Agnes Howie, eldest daughter of the late J. G. Megaw, of Windermere House, Upper Norwood.

WHITBY—ALLDRIDGE.—On the 19th inst., at the Parish Church, Edgbaston, Edward Vickers Whitby, M.R.C.S., of Summerfield, Birmingham, to Mary Jane, daughter of the late Edwin Alldridge, of Edgbaston.

DEATHS.

BAILY.—On the 27th Feb., at Robe, South Australia, Frederick William Baily, M.R.C.P.Lond., aged 31.

BRAMLEY.—On the 8th inst., Lawrence Bramley, F.R.C.S., of the Esplanade, Scarborough, formerly of Halifax, aged 75.

FINCH.—On the 13th inst., at Stainton Lodge, Blackheath, S.E., Alfred Finch, M.R.C.S., L.S.A.Lond., second son of the late Robert Finch, M.D., in his twenty-eighth year.

HARLAND.—On the 12th inst., at his residence, Acomb-street, Greenheys, Thomas Harland, M.D., aged 87.

LYCETT.—On the 8th inst., at his residence, Torquay Lodge, Falsgrove, Scarborough, John Lycett, M.D., aged 77.

WILSON.—On the 13th inst., at Upper Norwood, after a short illness, John Grant Wilson, M.D.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 20th, 1882.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 14	29·27	W.	53	48	..	60	44	·29	Cloudy
" 15	29·36	W.	52	49	..	54	42	..	Overcast
" 16	29·61	S.E.	47	40	..	54	35	..	Cloudy
" 17	29·44	S.W.	50	40	..	58	42	..	Overcast
" 18	29·64	N.W.	51	46	..	57	43	·08	Cloudy
" 19	30·02	S.W.	52	50	..	58	43	..	Overcast
" 20	29·97	W.	55	50	..	65	48	·02	Cloudy

Medical Diary for the ensuing Week.

Monday, April 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.: on Tuesday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—Mr. Balmanno Squire will show a Patient whom he has treated for Lupus.—Mr. Henry Morris, "On Ichthyosis and Cancer of the Tongue."—Dr. Richard Schmitz (of Neuenahr) will give experiences of 600 cases of Diabetes Mellitus.

Tuesday, April 25.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. E. B. Tylor, "On History of Customs and Beliefs."
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Exhibition of Pottery from Silesia, by General Pitt Rivers.—Mr. E. H. Man, "On the Aboriginal Inhabitants of the Andaman Islands, Part II."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. T. Holmes, "On Wounds of the Thoca Vertebralis, with Discharge of Cerebro-spinal Fluid."—Mr. R. W. Parker, "On Suggestions for the Treatment of Special Cases of Empyema by Thoracentesis, and the Simultaneous Injection of Purified Air."

Wednesday, April 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, April 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On the Metals."
HARVEIAN SOCIETY.—Mr. Malcolm Morris, "On the Treatment of Severe Acne Rosacea by Scarification."—Mr. Cripps Lawrence, "On Rötheln."

Friday, April 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—8 P.M. Professor Abel, "On some Dangerous Properties of Dusts."
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.
CLINICAL SOCIETY OF LONDON.—Mr. Pearce Gould: (1) "On a Case of Spina Bifida cured by Injection of Iodine;" (2) "On a Case of Congenital Intestinal Obstruction."—Dr. de Havilland Hall, "On a Case of Primary Perichondritis of Larynx."—Dr. Hector Cameron (Glasgow), "On Cases of Antiseptic Ligature of Arterial Trunks in their Continuity."—Dr. Stowers will exhibit a Case of Acne Variioliformis.

Saturday, April 29.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. F. Pollock, "On the History of the Science of Politics."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Local papers containing reports or news-paragraphs should be marked.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"SCEPTICISM IN THE MEDICAL PROFESSION."

Vicar points out that "the force of Exodus xx. 5, 6," is to show that while the sins of the fathers are visited on the children unto the third and fourth generation, mercy is shown "unto the thousandth generation." This does not affect the question at issue, inasmuch as the punishment of *any* child for the sins of its parent seems unjust, because the individual life is embittered by that for which it is in no way responsible. The secondary fact that mercy extends further than judgment would be no compensation for the primary fact that the innocent were afflicted in righteous vengeance incurred by the guilty. The explanation we offered places the whole issue on a different basis, and shows clearly that the "difficulty" has been created by our ignorance of the facts of nature. Truth is many-sided, but it is necessarily consistent. The truth of nature and of Nature's God are identical; but just as Joshua was enjoined to use the language of the period, and to speak of the sun as moving, because it was no part of the plan of revelation to ante-date scientific discovery by thousands of years, so throughout Scripture we find the knowledge of the period utilised to convey the Divine meaning. This is the plain force of the passage to which our correspondent refers. He must be content to find that the evolution of Truth demonstrates the unity and consistency of *truths* by disproof of the accuracy of many "private interpretations." Exodus xx. 5, 6, is a statement of the fact of physico-mental inheritance which has been observed in all ages, but is now beginning to be understood.

Mr. Geo. G. Jeafreson, Lux, and others.—We strictly adhere to the formula of the argument in our leaders, but cannot discuss the matter in full detail.

"HOSPITALS AND THE STATE."

To the Editor of THE LANCET.

SIR,—In the lengthened notice of my work on the above subject, which appears in this week's LANCET, the reviewer makes one or two suggestions which I should be glad to carry out if he will kindly give me the necessary data. At page 613 he refers to "Mr. Hudson's well-known work on the subject," and to "the simple, scientific manner" in which his statistics are compiled. May I ask, for the information of the many interested in hospital management as well as for myself, when and by what publisher this book was issued, its price, and the place where copies may be had?

The reviewer further says that he has misgivings as to the value of the tables of hospital income and expenditure, cost per bed, &c., given in my book, because he doubts the accuracy of the data on which the tables are based, as he should have preferred a statement drawn up in the form of a balance-sheet, showing on the one hand the income of these institutions from all sources, and on the other the expenditure. I have in my possession these particulars in detail and in the form he alludes to for the three years to which my tables refer. In fact, the tables as printed are but a carefully prepared synopsis of these fuller returns, the accuracy of which is, as a rule, attested by the signature of the various hospital authorities. I have, therefore, all the materials at hand, and if your reviewer will show me how his views can be practically carried out, by giving me the outline of the amended tables he prefers, I will at once prepare and publish the particulars in the interests of hospital managers generally. After considerable thought, I failed to hit upon any other form than that referred to for giving the requisite particulars about nearly 300 institutions within a reasonable space.

I am, Sir, your faithful servant,
Gloucester-road, Regent's-park, N.W., HENRY C. BURDETT.
April 17th, 1882.

*** By an unfortunate typographical error, the name of M. Husson, the well-known French author, was misprinted "Hudson." The word "cities," in the eighth line of the second paragraph of the review, should have been *centres*.—ED. L.

BREACH OF ENGAGEMENT ON THE PART OF AN OBSTETRICIAN.

H. P. B. avers strongly that the medical man who had previously attended his wife, whose labours were generally "cross," agreed again to do so, but, when summoned at night, flatly refused to go, and referred H. P. B. to the partner, whom the patient had explicitly objected to have. H. P. B. wishes to know if he should bring the conduct of the medical man before the Medical Council. We advise him to save himself the trouble. We must believe that there has been a misunderstanding, and that the medical man in question thought that, in the last resort, the partner would be taken. We gather from H. P. B.'s own account that the doctor was not well, and took this view. A midwifery engagement is, of course, a very binding one, both in law and in reason.

A Volunteer Surgeon.—Capt. Perrott, St. John's Gate, Clerkenwell.

"ANOTHER PRISON SCANDAL."

To the Editor of THE LANCET.

SIR,—As your article in THE LANCET of the 15th inst. relative to the above subject is calculated to mislead your numerous readers on several points connected with prisons, I trust you will allow me space in your valuable journal to allay any misapprehensions that may have arisen therefrom.

In reference to the dietary, you say "we find from the evidence that this wretched man received during the first week of his incarceration daily eight ounces of bread for breakfast, three ounces of oatmeal, and three ounces of Indian corn, made into a 'stirabout,' with water (not milk), for dinner, and eight ounces of bread for supper."

With the exception of the fact that the "stirabout" is made from Indian *meal*, and not Indian *corn*, the statement is thus far correct. You then go on to say, "at the end of the first week he received half a pint of soup made with shin bones thrice weekly in addition to the above diet." Such a statement is eminently calculated to mislead. As a matter of fact, after the first seven days, a prisoner receives the following diet:—For breakfast, six ounces of bread and one pint of gruel. For dinner, on Wednesdays and Sundays, six ounces of bread and eight ounces of suet pudding; on Mondays and Fridays, six ounces of bread and eight ounces of potatoes; on Tuesdays, Thursdays, and Saturdays, six ounces of bread and half a pint of soup made not from "shin bones," but from shin of beef, with peas, fresh vegetables, onions, and pepper and salt. For supper, six ounces of bread and one pint of gruel. It would be quite incompatible with my experience of prisons under the new *régime* to imagine for one moment that at Chester Castle this system of dietary is not strictly adhered to.

As regards your remarks about the responsibilities of medical officers, I can assure you that they are both practically and theoretically responsible, and that all medical reports are sent to the Commissioners only (who, of course, represent the Government), and that it would be more than a governor dare do to tamper with a report emanating from a medical officer. Such an unwonted interference would not be sanctioned for a moment either by the medical officer himself or the Commissioners.

In the matter of extras, I have to state that every medical officer is supplied with an "Extra Diet Book," and that he has the power, without let or hindrance, either to substitute one class of diet for another, or to add to one class portions of any other, at his discretion. In hospital cases he is almost furnished with a *carte blanche*.

From the comments made in one of your late numbers, and repeated in the present, touching the last "Annual Report on Prisons," several of your readers concluded that a large percentage of the deaths were returned as from "natural causes" by the medical officers themselves; but such is far from being the case. If a prisoner were to die—say from chronic bronchitis or Bright's disease—although the case may have been diagnosed, it would appear in the annual report under the head of "other natural causes," it not being considered necessary to furnish separate columns for the various groups of diseases.

But I think I have already trespassed too much on your valuable space, so will not say more at present.—I am, Sir, yours, &c.,

April 18th, 1882. A SUBSCRIBER.

*** Our correspondent strains at a gnat but swallows a camel. He corrects us with regard to Indian "corn" and "shin bones," but fails to explain how an aged prisoner suffering from angina pectoris and heart disease, under the "prison system," can be kept in an ordinary prison cell on the wretchedly inadequate diet for a patient in a condition such as he describes above, without medical comforts of any kind whatever, and is discharged from prison in such a state of exhaustion as to die within an hour or so of leaving it. Had he died within its walls the death no doubt would have appeared in the prison report under the head of "other natural causes," as we suppose it is not "considered necessary to furnish separate columns" for such details; at all events, they never appear in the reports. Fortunately, however, a coroner's jury in this instance has thrown a strong light on the nature and working of our prison system and the probable value of the prison reports. Next week we shall answer our correspondent's criticisms categorically, and bring forward the evidence adduced at the late inquest to prove our position.—ED. L.

THE WORKING OF THE CONTAGIOUS DISEASES ACTS.

Dr. Patterson (Glasgow).—The table furnished by our correspondent is in some respects interesting, but it is deficient in several important points so far as it bears upon the question of the Contagious Diseases Acts. No information is given as to the amount of accommodation in the hospital, how far that is usually taken advantage of, and whether it is found necessary often to refuse admission to patients. Again, the comparison of the proportion of cases to population in 1821 and 1881 has really no bearing on the question of the relative prevalence of disease at the two periods. It surely cannot be supposed that the cases of disease scattered over the present city of Glasgow, with its population of 700,000, would be brought to one hospital in anything like the same proportion as was the case when the population was only 147,000. To make the comparison of any value there should now be five hospitals instead of one, and these five distributed over the city so as to form, as it were, centres of districts. In its present form the table would be misleading for any purpose of inquiry into the prevalence of contagious disease in the city.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

AT the Primary or Anatomical and Physiological Examination for the diploma of membership of the Royal College of Surgeons, which was brought to a close on Friday last, 232 candidates had been examined, out of which number forty-five, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their studies for three months, including two who had an additional three months. At the corresponding period last year there were 214, of which number thirty-eight were referred for three months, and one for six months. At the Pass Examination, which was commenced on the 14th instant, there were sixty candidates, to whom the following questions on Surgical Anatomy and the Principles and Practice of Surgery were submitted, when they were required to answer at least four (including one of the first two) out of the six questions:—

1. Describe the antrum of Highmore, and mention the diseases to which it is liable.
2. Describe the knee-joint, and mention those structures which are in immediate relation with it.
3. What are the diagnostic signs and symptoms of an obturator hernia? and what treatment would you adopt under the various conditions it may present?
4. Mention the conditions under which the operations of tapping the abdomen may be required; how these are to be clinically distinguished; how and in which situations the puncture is usually made. To what risks is the patient exposed during the performance of the operation and afterwards, and how may these be avoided?
5. Describe fracture of the clavicle about its middle, the variations which may be found in the displacement, the complications which may attend the injury, the treatment to be pursued, and the result which may be anticipated.
6. Describe the course of sympathetic ophthalmia, and state the measures required for its prevention and treatment.

The following were the questions in Midwifery and Diseases of Women: three out of the four questions to be answered, between 12.30 and 2 P.M.:—

1. Describe the mechanism of labour with the face presenting, and the chin forward and to the left.
2. What are the dangers attending retroversion of the gravid uterus? How would you treat this condition?
3. Describe the usual course of phlegmasia alba dolens.
4. Describe the treatment of post-partum hæmorrhage.

The following were the questions on the Principles and Practice of Medicine. Three out of the four questions, including No. 4, were required to be answered, from 2.30 to 4.30 P.M.:—

1. What are the clinical phenomena of locomotor ataxy; and what are the lesions discoverable after death from this disease?
2. What diseases may lead to considerable enlargement of the spleen? and what are their distinctive characters?
3. Discuss the signs and symptoms of thoracic aneurisms, and the several modes in which they may prove fatal.
4. State the effects, uses, and doses of the following drugs:—Tartarated antimony, antimonial wine; arsenious acid, liquor arsenicalis; bicarbonate of potash, effervescing solution of potash; tincture of hemlock, juice of hemlock; tannic acid, glycerine of tannic acid; tincture of Indian hemp, extract of Indian hemp; rhubarb, tincture of rhubarb; compound powder of catechu, tincture of catechu; opium, tincture of opium; chloral-hydrate, syrup of chloral.

Mr. W. G. Dickinson.—There seems no limitation of persons as regards fitness for admission. We should regard the publication of names as better avoided. The indiscriminate circulation of such an advertisement among the patients of medical men is not desirable. The rates are too low, especially for children.

PREMATURE INTERMENT.

A DAILY CONTEMPORARY states that at the gates of the Avignon Cemetery the parents of a child, certified to have died of croup, insisted on having the coffin opened to take a last look. The child was found breathing, and is expected to be saved.

Mr. Ellice Clark (Brighton) is mistaken. We wrote of the sewerage of Brighton and its suburbs with a full knowledge of the facts, and are in no doubt as to the accuracy of the statements we made or the opinions we expressed. The authorities will do wisely to set to work in earnest and promptly to meet the great difficulty of adequate flushing, now probably their only resource in the position in which they find themselves at the end of a long series of costly efforts to obviate the effects of scientific blundering.

Dr. Lithgow.—Next week, if possible.

Mr. H. Fred. Plunkett.—1. Yes.—2. Yes, if otherwise qualified.

"TYPHOID IN MELBOURNE IN 1878."

To the Editor of THE LANCET.

SIR,—Will you kindly allow me space to point out what seems to me to be the unfairness of the paragraph under the above heading in THE LANCET of Dec. 31st last. It was called forth, you say, by a reprint of an unsigned letter from the *Melbourne Argus* sent to you. The publication no doubt was a slender pamphlet issued, without his name, by Mr. W. Thomson, of this city, as a kind of continuation of his well-known report. There was unfairness, in the first place, on the part of the sender, whether author or not, in forwarding it, without remark, at a time when the figures for two later years were available, showing a very different state of things. The mortality from typhoid was no doubt very great in Melbourne in 1878, but quite exceptionally so, the deaths registered numbering 307. To present that death-rate and comment on it as if it were a fair specimen had about the same measure of justice as there would be in taking the year 1871 for Liverpool, with 888 deaths from fever, as showing its ordinary condition, the average of recent years being only about 400. The deaths from typhoid in Melbourne in the three years 1879–81 have been only 195, 138, and 157 respectively, with a rapidly increasing population. Whether there was not some unfairness on your part also in giving all the prominence of a special title and leaded type to the paragraph I will not say, but what was practically intended as a warning to your readers and future colonists ought surely to have rested on the latest information obtainable.

Taking the year 1878 by itself, there was perhaps some justification for your remarks that the fatality in that year "shows a persisting predominance of that disease in the city which passes entirely beyond the experience of this country." But there are circumstances in the case which require explanation. All deaths from the various forms of continued fever are here grouped under the heading "typhoid." We have no typhus, and simple continued fever is not separately accounted for as in England. Typhoid with us, therefore, includes more than it does in the mother country. Bearing this in mind, I think it will be possible to show that typhoid is not more prevalent here than in some English towns, and that, if there is nothing else to alarm future colonists, they need not be kept away by the dread of fever. It is perhaps no great boast that Melbourne in this respect is in no worse condition than some of the less healthy English towns; but we have yet nothing better than surface drainage, and when underground drainage is carried out, as at present proposed, we may expect an improvement similar to that wrought elsewhere. According to the forty-first annual report of the Registrar-General for England, the death-rate from fever in the years 1870-77 averaged in Liverpool 1·05 per 1000 persons living, in Sheffield ·97, in Hull ·90, in Leeds ·84, and so on downwards to London, with ·45. In Melbourne, in the same years, with a mean population of about 231,200, the average rate was ·73 per 1000 from cases registered as typhoid. Even if a deduction of 10 per cent. or more for typhus be made from the rates in Liverpool and other places, that of Melbourne compares not unfavourably. Things were even better in the last three years, 1879-81, when, with a mean population of 275,400, the rate was only ·59 per 1000. I do not mean to assert that the sanitary condition of Melbourne is satisfactory. It is far from being so, as I have often insisted in our local press; but its defects should not be exaggerated.

If you can give anything like similar prominence to this communication to that given to the paragraph I have ventured to criticise, you will do something to correct the unfairness of the impression you doubtless unwittingly conveyed.—I remain, Sir, yours, &c.,

Collins-street East, Melbourne, Feb. 15th, 1882. JAMES JAMIESON, M.D.

Luke.—Treatise on the Physical Cause of the Death of Christ, and its relation to the principles and practice of Christianity; by K. William Stroud, 1847.

A. F.—The journal named has the highest reputation.

Dr. Dale (Scarborough).—Soon.

Mr. Macaulay (Newcastle-on-Tyne).—In an early number.

Mr. Wrixon's letter will appear in our next.

THE DISCOVERER OF VACCINATION.

AN American paper gives as an interesting fact the following living link of Dr. Edward Jenner: that Major Ramsay, U.S.A., who has just celebrated his eightieth birthday, was the first child vaccinated in the United States north of the Potomac. The virus for his arm was sent from London by Dr. Jenner himself to his relative's child. Dr. Jenner's first experiment publicly made was in 1796, and he died in 1823.

THE communication of *Dr. Joseph Rogers* respecting the payment of fees to medical officers of workhouse infirmaries for post-mortems and giving evidence at coroners' inquests, must, on account of its great length, be left over for our next issue.

"HOMŒOPATHY NOT TAUGHT IN THE LONDON SCHOOL OF HOMŒOPATHY."

To the Editor of THE LANCET.

SIR,—In reply to my critics, Drs. Pope and Hughes, I beg to note the following statements:—

1. Hahnemann best knew what he meant by homœopathy, and if he employed the word in a certain definite sense, which sense has been accepted by a large number of faithful followers, it is both illogical and unfair to limit or distort that sense. The fact of his being or not being "divinely inspired" (whatever that may mean) is foreign to the question.

2. Hahnemann declares (preface to the fifth edition of the "Organon") that "homœopathy is a perfectly simple system of medicine, remaining always fixed in its principles as in its practice." No "system of medicine" can exist without rules for the dose, and Hahnemann has given rules for both the dose and the potency, teaching how they should be varied under different circumstances. He does not teach that an unvarying potency is to be employed in all cases, Dr. Pope to the contrary notwithstanding.

3. Hahnemann's sole "dogmatism" is this: that he gives in his "Organon" the conclusions at which he had arrived from his long practice, challenging the profession to put them to the practical test, and refute them if they can, which oft-quoted challenge neither of my critics has ever accepted. His statements are "dogmatic" just in the sense that a text-book of the laws of astronomy would be dogmatic, nothing more and nothing less. Hahnemann does not profess to give in his "Organon" the proofs of all his assertions, for to do this would be to quote the records of fifty years' experience. Dr. Pope's assertions about the dose are quite as "dogmatic" as those of Hahnemann, and, moreover, lack the latter's fifty years of experience.

4. That even the "law or rule" of similia is violated in the teachings of the "school" is evidenced by a lecture on follicular pharyngitis, delivered at the school by Dr. Pope's co-editor and co-lecturer, Dr. Dyce Brown. In this lecture, published in the *Monthly Hom. Review*, 1877, pp. 541–2, we are told that it is lawful in "obstinate cases" for a professed homœopath to use local applications of "nitrate of silver, twenty grains to one ounce, or tincture of perchloride of iron, or alum, in solutions of five to ten grains to one ounce." This treatment so much resembles that of sponging the diphtheritic pharynx "with a weak solution of nitrate of silver," which Drs. Pope and Brown lately admitted without comment into their review, and even now tacitly endorse by their silence on my criticism thereon, that I have been wondering ever since whether the prescriber was one of Dr. Dyce Brown's pupils, and this prescription one of the fruits of his philosophy.

5. To Dr. Hughes I say that where Hahnemann's later teachings differ from his earlier (which they do only to a very slight extent), these later teachings should always be taken as the most authoritative, as being the results of the most extended experience. That Hahnemann made the infinitesimal dose an integral part of his system almost from the first, and not only since 1829, can be proved historically.

6. If Dr. Hughes will refer to the recently published (sixth) edition of Ringer's "Handbook of Therapeutics" he will find (p. 314) the following statement about arsenic:—"Like phosphorus, it produces extreme fatty degeneration of the liver." If this does not denote "power of disturbing its functions or altering its tissue," these words have no meaning; and, on the other hand, if it has this power, but yet cannot "be used in its disorders with an assurance of direct operation thereon," what becomes of the "law or rule" of similia which he professes to hold?

I am, Sir, yours, &c.,

April 17th, 1882. A FAITHFUL HAHNEMANNIAN.

*** We cannot insert further correspondence on this subject.—ED. L.

Ignoramus.—The discretion of the coroner is very large, and would include the cases supposed.

Mr. George Holmes.—There is no law against it.

Mr. H. P. Dunn.—Shortly.

Dr. Swann (Batley).—The theory of our correspondent may be correct, but it is quite possible that the hæmorrhage on the brain was non-traumatic. Certainly the "pulmonary apoplexy" was not the primary cause of death, but probably followed upon the brain lesion.

WORTHING AS A HEALTH RESORT.

To the Editor of THE LANCET.

SIR,—Will you kindly afford me an opportunity of bringing before the notice of the profession the advantages of Worthing as a health resort, particularly in the winter?

Worthing is built upon a plain only a few feet above the level of the sea at high water, and is very effectually sheltered by the range of the South Downs from the north and north-easterly winds, and by Beachey Head from the east and south-easterly. The South Downs are situated about a mile and a half or two miles from the town. The late Dr. Lethaby, who visited Worthing year after year, used to say that these hills were placed at exactly the right distance, giving complete shelter, and at the same time not being too near to prevent the free course of the sea breezes over the town. The whole of the country between the sea and the hills is level and very picturesque, affording excellent driving and walking exercise for invalids, without any change of temperature.

The character of the soil upon which Worthing is built may be described by quoting from the late Dr. Barker's little book:—"The following may be said to be the geological character of the surface of the country at Worthing: from four to ten feet of loam, below this a stratum of sand and pebbles from one to ten feet in thickness, and underneath this a layer of chalk and flints."

The aspect of Worthing is almost or quite due south, and the temperature in winter is extremely mild and equable. The drainage, which of late years has been entirely reconstructed, is very good, and the sewage is emptied into the sea at a distance of a mile and a half from the town. The atmosphere is clear and bright, and the place is fairly free from fogs. The water-supply is exceptionally good, being equal or superior to that of any town on the south coast. It is pumped by machinery from wells nearly 400 feet deep. I have analyses made at different intervals.

Now, having written what I have in favour of Worthing, I am bound in common honesty to refer to one point which may and which undoubtedly does militate against the place. I allude to the occasional accumulation of seaweed upon the beach in the summer and the disagreeable smell arising therefrom. About two years ago I felt compelled, although reluctantly, to write strongly upon the subject, and I was extremely pleased to find that last year the local authorities awoke to the necessity of taking prompt measures to throw the accumulated weed back into the sea at once, and so to a very great extent remove the nuisance. This unpleasant state of things occurs only occasionally after a severe gale in the hot season. From the middle of September to the end of June we are never troubled with any such inconvenience.

Worthing is, I believe, especially adapted for all chest affections, and for neuralgia and rheumatism; indeed, for all complaints requiring a mild and equable temperature. For elderly people and for children it is impossible to speak too highly of Worthing. I have two patients, one who was ninety years of age last month; another, who, if she lives until December, will be ninety-two. Neither of these persons has had a single day's illness throughout the winter. In fact, I may add that from the 23rd of August, 1881, to the 4th of the present month, I have not had occasion to write one single death certificate. This embraces a period of seven months, including the winter season. Such a fact is, of course, exceptional, and is unparalleled in my experience of close upon twenty-five years. But the grand test of the salubrity of any place is the annual death-rate, and, by the kindness of our excellent medical officer of health (Dr. Kelly), I am enabled to append the following statement for the past three years:—

	Death-rate per thousand.	
Year.	Including visitors.	Excluding visitors.
1879	15·0	14·3
1880	15·7	14·5
1881	15·3	13·5

I am, Sir, yours faithfully,

JOHN GOLDSMITH, M.D.

Highworth, Worthing, April 17th, 1882.

PROSECUTION OF A MEDICAL MAN AT SWANSEA.

WANT of space compels us to defer reference to this matter until next week.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Herman, London; Mr. Scudamore, London; Dr. Martin; Dr. R. A. D. Lithgow, London; Mr. Shirtliff, Kingston; Mr. C. W. Bellamy; Dr. Taylor, Scarborough; Messrs. Milligan, Edinburgh; Dr. Gibson, Newcastle-on-Tyne; Mr. W. Wallis, London; Mr. Stanford Harris, Pendlebury; Dr. Jeaffreson, Framlingham; Mr. Meyers; Mr. Balfour, Leven; Mr. Jesse, London; Mr. Blackett, London; Mr. Wrixon, Sarratt; Mr. Turton; Mr. Vaughan, London; Mr. Shirley Murphy, London; Mr. Bryant, London; Mr. Millican, Leicester; Dr. Garden, Aberdeen; Mr. Rivington, London; Dr. de G. Griffith; Mr. Knocker, Boan; Mr. Dickinson; Mr. Plunkett; Mr. E. F. Griffith, London; Dr. Thin, London; Mr. Burdett; Dr. Goldsmith, Worthing; Mr. Beck, London; Dr. M'Laurin; Mr. Robottom; Mr. Lattey, London; Mr. Freeman, Mr. Allen, Bollington; Dr. Kenyon, Chester; Mr. E. A. Hillyard, Belper; Dr. Boyes, West Brighton; Mr. Shield, London; Dr. Gray, Oxford; Mr. Thomas, Penclawad; Dr. Spender, Bath; Mr. Plaister, Tottenham; Mr. Cullimore, London; Mr. Higgins, Leeds; Dr. Buck, Ryde; Mr. Jenkins, Swansea; Mr. Byerley, Portsea; Messrs. Harvey and Reynolds, Leeds; Mr. Scott, Manchester; Mr. Mann, Leith; Dr. Jones, Louisiana; Dr. Brett, Watford; Dr. Benson, Sutton; Dr. Buss, Batley; Mr. Sarke, London; Messrs. Cusson and Co., Wednesbury; Dr. Sturges; Messrs. Knight and Co., Stockton-on-Tees; Mrs. Hymns, Peterborough; Mr. Lamb, Stratford-on-Avon; Mr. Lacey, Wandsworth; Mr. Goodwin, Maidstone; Mr. Humphrey, London; Messrs. Macmillan and Co., Cambridge; Messrs. Maclachlan and Co., Edinburgh; Mr. G. C. Cooke, London; Dr. Symes Thompson, London; A Subscriber; Medical Student; Ignoramus; M.B.; Z., Birmingham; Lux; M.B., C.M.; A. F.; Sanitas; Primus in India; A Surgeon-Major in the Militia; T. H. J.; South African Subscriber; Simeon; A Bart.'s M.B. Lond.; H. P. B.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Davis, Galway; Mr. Ronald, Aberdeen; Dr. Thiele, Bermuda; Mr. Maw, Bradford; Mr. Dickson, Liverpool; Mr. Meyler, Paulton; Dr. Smith, Dumbarton; Mr. Heywood, Rochester; Mr. Hopgood, Stow-on-the-Wold; Dr. Johnston, Sheffield; Mr. Bagshaw, Salford; Mr. Jolliffe, Donington; Dr. Cullingworth, Manchester; Mr. Pugh, Birmingham; Messrs. Keith and Co., Edinburgh; Mr. Baker, Dawlish; Mr. Rainer, Ipswich; Dr. Harding, Whittlesea; Dr. Colombo, Milan; Dr. Vickers, Limehouse; Mr. Spiers, Clinker; Mr. Mann; Mr. Blain, Alnwick; Dr. Pernisch, Engadine; Mr. Thalwall, Stilton; Messrs. Wakefield and Sons, Camelford; Dr. Ellerton, Middlesboro'; Mr. Williams, Richmond, Yorks; Mr. Clubbe, Lower Tooting; Mr. Ileon, Old Kent-road; Mr. Pugh, Liverpool; Mr. Welsh, Maidstone; Mr. Wallace, Liverpool; Dr. Cooke, Sheffield; Mr. Dayson, Ebbw Vale; Mr. Marley, Padstow; Mr. Jackson, Smethwick; Messrs. Mears and Son, Thame; Mr. Raines, Ipswich; B. B. J., Brighton; B., Gainsborough; M.D.; Delta, York; W. B. Y. L.; B. M., Sheffield; Winnipeg, Selby; C. S., Leicester; Registrar, Bath; D. L. M., Notting-hill; B. C., Newtown; X.; M.R.C.S., Huddersfield; T. F. W.; F. J. C.; Forceps; A. B.; W. L. J.; F. R. C.; P. O. M.; Spes; Miles; Delta; Alpha, Preston; H. L. S., Worcester; X. Y., Edinburgh; Medicus, Worthing; J. L., Rotherfield; L.R.C.P.; L. M., Dublin; F. H., Notting-hill; Sparo; M.R.C.S.; G., Leeds; M. B., Anfield; G. M., Wigan; &c., &c.

The Christian World, Church Standard, Church of England Temperance Chronicle, Southport Visitor, Alliance News, Labour News, Melbourne Herald, Batley Reporter, Leigh Journal, Insurance Record, &c., have been received.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year.....£1 12 6 | Six Months £0 16 3

TO CHINA AND INDIA ..... One Year, 1 16 10

TO THE COLONIES AND UNITED STATES .. Ditto, 1 14 8

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

ADVERTISING.

Books and Publications	£0 5 0
Official and General Announcements..	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Seven lines and under (each averaging ten words).	
Every additional Line..	0 0 6
Front Page .. .. per Line	0 1 6
Quarter Page	1 10 0
Half a Page	2 15 0
An entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.